
APPEAL BRIEF

PATENT APPLICATION 10/805,888

Filed 3/22/04
Art Unit 2162

Robert W. Winter:

**Searching Content Information Based on
Standardized Categories and Selectable Categorizers**

Examiner: Dennis Myint

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REAL PARTY IN INTEREST

Robert W. Winter
1091 Lakeview Terrace
Azusa, CA 91702
(626) 303-5400

unauthvu@earthlink.net

RELATED APPEALS & INTERFERENCES

None

STATUS OF CLAIMS

The chart below shows the status of all claims in the most recent final office action, dated November 5, 2007.

CLAIM(S)	FINAL STATUS AS OF OFFICE ACTION 11/5/07	APPEAL STATUS
1-2	Rejected	Appealed
3	Cancelled	Cancelled
4-18	Rejected	Appealed
19-29	Rejected	Willing to cancel, pending discussion in appeal process
30	Cancelled	Cancelled
31-40	Rejected	Willing to cancel, pending discussion in appeal process

STATUS OF AMENDMENTS

An amendment filed January 10, 2008 was addressed in a non-final office action dated March 3, 2008. All claims were rejected, for the reasons shown in the table below.

The chart also indicates which office actions are being challenged in this appeal, and which are not.

#	DESCRIPTION	STATUS	BASIS	PRIOR ART
1	<p>(Currently Amended) A method performed by one or more computers for identifying content in a computer network, the method comprising:</p> <ul style="list-style-type: none"> storing a plurality of predetermined categories in a database; categorizing a plurality of pre-existing items corresponding to one or more of the plurality of predetermined categories, by a plurality of categorizers, respectively, <u>wherein a subsequent categorizer is capable of categorizing an item already categorized by an early categorizer;</u> displaying at least a portion of the stored plurality of predetermined categories; displaying respective categorizers for the displayed predetermined categories; selecting a category from the displayed predetermined categories by a user; <u>displaying categorizers for the selected category;</u> selecting a categorizer from the displayed 	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer

#	DESCRIPTION	STATUS	BASIS	PRIOR ART
	<p>categorizers by the user;</p> <ul style="list-style-type: none"> initiating a search for one or more pre-existing items in the computer network based on the selected category and the selected categorizer as search parameters; displaying results of the search on a display; selecting one or more of the displayed results for more detail description of the selected item; providing incentive to one or more categorizers based on number of users who have selected an item categorized by the one or more categorizers; and sharing the incentive among <u>[[an]] the early categorizer and [[a]] the subsequent categorizer</u> whose subsequent categorization is based on the categorization of the early categorizer and allocating the incentive between the early categorizer and the subsequent categorizer. 			
2	(Previously Presented) The method of claim 1, wherein the plurality of predetermined categories include taste and style.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Robinson
3	(Canceled).	Canceled		
4	(Previously Presented) The method of claim 1, further comprising ordering the displayed search results based on a user selectable order.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer
5	(Original) The method of claim 1, wherein the step of categorizing comprises signing up on a website as a categorizer and categorizing a plurality of items corresponding to one or more of the plurality of predetermined categories.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer
6	(Original) The method of claim 1, further comprising charging a fee for initiating the search for the one or more items.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer
7	(Currently Amended) The method of claim 1, wherein the number of users who have selected an item categorized by the one or more categorizers is a function of the number of users who have selected the item and have come back to the search results within an <u>approximately a substantially</u> short time.	Rejected, Appealed	Obvious, vague & indefinite	Covington, Pundarika, Montemer, Robinson
8	(Currently Amended) The method of claim 7, further comprising compensating the categorizer based on the <u>assigned points-number of users who have selected an item categorized by the categorizer.</u>	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Robinson
9	(Original) The method of claim 7, further comprising positioning the categorizer on a favorable screen position of a display screen, based on the assigned points to the categorizer.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Robinson

#	DESCRIPTION	STATUS	BASIS	PRIOR ART
10	(Previously Presented) The method of claim 1, wherein the sum of all incentives for a given user's selection is equal to one.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Pinsonnault
11	(Currently Amended) The method of claim 10, wherein the list of respective categorizers displayed on the display screen is ordered based on one or more of a respective categorizer's overall popularity within the selected category, a respective categorizer's recent popularity within the selected category, a respective categorizer's overall popularity within a broader subject area than the selected category, a respective categorizer's recent popularity within a broader subject area than the selected category, a respective categorizer's reliability within a user-specified subject area, and a respective categorizer's reliability within a broad subject area.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Pinsonnault
12	(Original) The method of claim 1, wherein at least one of the plurality of predetermined categories relates to music.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Robinson
13	(Original) The method of claim 1, wherein at least one of the plurality of predetermined categories relates to movies.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Robinson
14	(Original) The method of claim 1, wherein at least one of the plurality of predetermined categories relates to books.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer
15	(Original) The method of claim 1, wherein at least one of the plurality of predetermined categories relates to web pages.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer
16	(Original) The method of claim 1, wherein at least one of the plurality of predetermined categories relates to security or intelligence content.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Edwards
17	(Original) The method of claim 1, wherein at least one of the plurality of predetermined categories relates to a product or a service.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Robinson
18	(Original) The method of claim 17, wherein the product or the service is one or more of art, craft, wine, cheese, beer, plumbing, air conditioning, auto repair, haircutting, legal service, and medical service.	Rejected, Appealed	Obvious	Covington, Pundarika, Montemer, Robinson, Gonzales
19	(Currently Amended) A method for categorizing an item to be searched by a user in a computer network, the method comprising: <ul style="list-style-type: none"> accessing a web site by an authorized categorizer; identifying the item to be categorized; displaying a category from a plurality of predetermined categories stored in a database 	Rejected, Willing to Cancel	Obvious	Covington, Pundarika, Montemer

#	DESCRIPTION	STATUS	BASIS	PRIOR ART
	<p>accessible by the web site;</p> <ul style="list-style-type: none"> selecting a category from the displayed plurality of predetermined categories by the authorized categorizer; displaying cost and incentive for the authorized categorizer for the selected category; applying the selected category to the identified item by the authorized categorizer; [[and]] storing the identified item, the applied category, and the authorized categorizer in the database; providing incentive to one or more categorizers based on number of users who have selected an item categorized by the one or more categorizers; and sharing the incentive among an early categorizer and a subsequent categorizer whose subsequent categorization is based on the categorization of the early categorizer and allocating the incentive between the early categorizer and the subsequent categorizer. 			
20	(Original) The method of claim 19, further comprising signing up on a web site as an authorized user.	Rejected, Willing to Cancel	Obvious	Covington, Pundarika, Montemer
21	(Original) The method of claim 20, further comprising <ul style="list-style-type: none"> selecting a category from a plurality of predetermined categories; selecting a categorizer from a plurality of categorizers; and initiating a search for an item in the computer network corresponding to the selected category and the selected categorizer. 	Rejected, Willing to Cancel	Obvious	Covington, Pundarika, Montemer
22	(Original) The method of claim 21, further comprising displaying results of the search on a display.	Rejected, Willing to Cancel	Obvious	Covington, Pundarika, Montemer
23	(Original) The method of claim 22, further comprising ordering the displayed search results based on a user selectable order.	Rejected, Willing to Cancel	Obvious	Covington, Pundarika, Montemer
24	(Original) The method of claim 19, further comprising charging the categorizer a fee for categorizing the item.	Rejected, Willing to Cancel	Obvious	Covington, Pundarika, Montemer, Boyd
25	(Original) The method of claim 21, further comprising assigning points to a second categorizer based on number of users who have searched an item categorized by the second categorizer.	Rejected, Willing to Cancel	Obvious, vague & indefinite	Covington, Pundarika, Montemer, Robinson
26	(Original) The method of claim 25, further comprising compensating the second categorizer based on the assigned points.	Rejected, Willing to Cancel	Obvious	Covington, Pundarika, Montemer, Robinson

#	DESCRIPTION	STATUS	BASIS	PRIOR ART
27	(Original) The method of claim 25, further comprising positioning the second categorizer on a favorable screen position of a display screen, based on the assigned points to the second categorizer.	Rejected, Willing to Cancel	Obvious	Covington, Pundarika, Montermer, Robinson
28	<p>(Currently Amended) A system for identifying content in a computer network comprising:</p> <ul style="list-style-type: none"> means for storing a plurality of predetermined categories, wherein the plurality of predetermined categories include taste and style; means for categorizing a plurality of pre-existing items corresponding to one or more of the plurality of predetermined categories, by a plurality of categorizers, respectively, <u>wherein a subsequent categorizer is capable of categorizing an item already categorized by an early categorizer;</u> means for displaying at least a portion of the stored plurality of predetermined categories; means for displaying respective categorizers for the displayed predetermined categories; means for selecting a category from the displayed predetermined categories by a user; <u>means for displaying categorizers for the selected category;</u> means for selecting a categorizer from the displayed categorizers by the user; means for initiating a search for one or more pre-existing items in the computer network-based on the selected category and the selected categorizer as search parameters; means for displaying results of the search; means for selecting one or more of the displayed results for more detail description of the selected item; means for providing incentive to one or more categorizers based on number of users who have selected an item categorized by the one or more categorizers; and means for sharing the incentive among an early categorizer and a subsequent categorizer whose subsequent categorization is based on the categorization of the early categorizer and allocating the incentive between the early categorizer and the subsequent categorizer. 	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer
29	(Original) The system of claim 28, further comprising means for signing up on a web site as an authorized user.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer
30	(Canceled)	Canceled		

#	DESCRIPTION	STATUS	BASIS	PRIOR ART
31	(Previously Presented) The system of claim 28, further comprising means for ordering the displayed search results based on a user selectable order.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer
32	(Original) The system of claim 28, wherein means for categorizing comprises means for signing up on a website as a categorizer and means for categorizing a plurality of items corresponding to one or more of the plurality of predetermined categories.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer
33	(Original) The system of claim 28, further comprising means for charging a fee for initiating the search for the one or more items.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer
34	(Original) The system of claim 28, further comprising means for assigning points to a categorizer based on number of users who have searched an item categorized by the categorizer.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer, Robinson
35	(Original) The system of claim 34, further comprising means for compensating the categorizer based on the assigned points.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer, Robinson
36	(Original) The system of claim 28, further comprising means for positioning the categorizer on a favorable screen position of a display screen, based on the assigned points to the categorizer.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer, Robinson
37	(Original) The system of claim 28, wherein at least one of the plurality of predetermined categories relates to a product or a service.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer, Robinson
38	(Previously Presented) A system for categorizing an item to be searched by a user in a computer network comprising: <ul style="list-style-type: none"> means for accessing a web site by an authorized categorizer; means for identifying the item to be categorized; means for displaying a category from a plurality of predetermined categories stored in a database accessible by the web site; means for selecting a category from the displayed 	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montermer

#	DESCRIPTION	STATUS	BASIS	PRIOR ART
	<p>plurality of predetermined categories by the authorized categorizer;</p> <ul style="list-style-type: none"> means for displaying cost and incentive for the authorized categorizer for the selected category; means for applying the selected category to the identified item by the authorized categorizer; means for storing the identified item, the applied category, and the authorized categorizer in the database; means for providing incentive to one or more categorizers based on number of users who have selected an item categorized by the one or more categorizers; and means for sharing the incentive among an early categorizer and a subsequent categorizer whose subsequent categorization is based on the categorization of the early categorizer and allocating the incentive between the early categorizer and the subsequent categorizer. 			
39	(Original) The system of claim 38, further comprising means for signing up on a web site as an authorizer user.	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montemer
40	<p>(Previously Presented) The-system of claim 39, further comprising</p> <ul style="list-style-type: none"> means for selecting a category from a plurality of predetermined categories; means for selecting a categorizer from a plurality of categorizers; and means for initiating a search for an item in the computer network corresponding to the selected category and the selected categorizer. 	Rejected, Willing to Cancel	Obvious, non- statutory material (software per se)	Covington, Pundarika, Montemer

SUMMARY OF CLAIMED SUBJECT MATTER

Not required, because this appeal is being filed by an appellant who is not represented by a registered practitioner.

It is believed that the underlying essence of this section of the appeal brief is served within the arguments addressing obviousness, in a section entitled “What Pinpointer Accomplishes,” which begins on page 18 of this document.

If it is allowable under the rules of appeals, the reader will probably also find it useful to explore the web site where the invention is embodied, at www.pinpointer.net. While not yet launched into full production as of this writing, the site could help flesh out operational and functional points that may not come across as clearly in written form.

If a further written summary would be helpful, please provide general guidance on what this should contain, and I will attempt to provide one.

In addition, the reader may find it convenient to scan the Status of Amendments section, which is a matrix showing in side-by-side format each claim, including claim number as well as claim text, along with its status and any reason(s) for rejection, plus a cross-reference to the prior art cited by the examiner.

If the reader also consults the main patent application, it should be noted that a significant amount of relevant disclosure and description of the invention is to be found in the preliminary application, which was extracted from the design specification that was used to build the system in which the invention is embodied. (Lack of awareness of this supplemental information has caused confusion in the past.)

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Not required, because this appeal is being filed by an appellant who is not represented by a registered practitioner.

The following information is offered in the hope that it may fulfill essentially the same function as a registered practitioner's description of grounds of rejection to be reviewed on appeal, although expressed in layman's terms.

- The primary ground for rejection that is being appealed is obviousness (per 35 USC, Title 103).
- A finding of vagueness or indefiniteness (per 35 USC, Title 112) in the formulation of one claim is also being appealed. This latter appeal consists only of the provision of additional information and a request for guidance.

For the sake of convenience, the reader may also wish to refer to the Status of Amendments section, which is a matrix showing in side-by-side format each claim, including claim number as well as claim text, along with its status and any reason(s) for rejection, plus a cross-reference to the prior art cited by the examiner.

ARGUMENTS: OBVIOUSNESS

The arguments contained in this section pertain to the claims rejected by the examiner under 35 USC, Title 103 for obviousness. They primarily address claim 1.

They also apply to claims 2 through 18, primarily on the grounds that while these subsequent claims are not novel enough to be patentable in their own right, they are reasonable elaborations and significant supplements to claim 1, and should therefore be allowed if claim 1 is allowed. In addition, based on guidance from the Patent Office, I would be willing to consider incorporating one or more of these claims into claim 1.

BACKGROUND AND CONTEXT

First, I regret that I must ask the Patent Office's indulgence in reviewing a brief that has not been prepared by a patent attorney. After utilizing professional counsel to file my initial claims and respond to a long string of office actions, I'm afraid I've run out of money.

In one or two places within the context of my arguments, I will request the guidance of the Patent Office on an issue in which my layman's knowledge is admittedly deficient. I hope this will not be considered inappropriate. I am not asking the Patent Office to formulate my claims for me, just to provide a few words of general guidance in a reply; or if this is not appropriate, to refer me to a source where I can find the guidance I need.

Two other context-setting items should be noted before I launch into the main body of my arguments:

- Throughout the course of this document, I will be referring to my invention as Pinpointer. This is the name of the Internet service in which the invention is embodied, and it tends to roll much easier off a layman's tongue than terms like "the present invention," or whatever is more customary technical usage. If it is appropriate under patent Office regulations and procedures, I would urge the reader to access and explore Pinpointer at www.pinpointer.net, where its operation as well as its underlying essence may be easier to understand than in my attempts to describe it verbally.
- An additional resource that the reader may find useful as an elaboration of the context and functional benefits of the invention is an electronically published article of mine entitled "Breaking Through the Walls: Realizing the Internet's Potential, from Politics to the Arts." A copy of this article is included in the Evidence Appendix.

The article can also be found online at www.notesinbottle.com/walls.htm, where its original navigational structure is intact and related materials can be explored.

Please note that the online article employs a novel exposition structure, in which the reader sees summary-level statements, then clicks a button labeled "Read" to go to the section of actual writing that a given summary statement encapsulates. Please be sure to click these buttons if you want to go beyond a summary level.

BASIS FOR THE APPEAL

I feel I have no choice but to appeal, because consistently over a span of years, I have not seen the criteria for evaluating the novelty of my invention go beyond a simple inventory of its components.

I believe that under the standards that have been used to evaluate my claims up to his point, the internal combustion engine could never have been granted a patent—because, for example, the internal combustion engine is based on the combustion of petroleum products to move pistons, and pistons were already in use in steam engines, while petroleum products were burned in kerosene lamps.

I have been told by more than one patent attorney that a valid test of novelty should also include determining whether an arrangement of pre-existing components enables an invention to do something significantly new or better.

The purpose of my appeal is primarily to request that this type of test be applied to my invention (which, as previously noted, will be referred to throughout this brief as Pinpointer).

WHAT PINPOINTER ACCOMPLISHES

The following description is intended to more fully amplify and clarify the business and functional context in which Pinpointer operates, as well as the benefits it provides.

While I have disclosed everything in my patent application that would be needed by a person of ordinary skill in the field to build and launch a service like Pinpointer, I did not go into great depth in describing the business conditions under which Pinpointer will operate, or elaborating the markets it will serve and in which it will come to prominence.

The main reason I did not do this was that I did not feel it would be appropriate in a patent application. I believed that for me to elaborate on business considerations of this type would be like the inventor of the internal combustion engine including marketing data in his patent application on what types of people might be likely customers for an automobile—the kind of thing that potential investors would be interested in reading, but not a patent examiner.

Another factor had to do with the business context in which I found myself. As will be shown in more detail in subsequent pages, Pinpointer is designed to be an industry-changing service. At the time I filed my application, I believed I would need to establish near-term cooperative arrangements, and potentially even obtain investment funding, from some of the very entities that my invention is designed to eventually overtake in the marketplace, such as record companies and magazines. This made it inadvisable to

describe more than was necessary about my long-term strategic intentions in a published public document that potential near-term partners would be likely to read.

However, in assessing the degree of non-consideration that has been shown thus far to the business and functional problems Pinpointer solves, it seems only reasonable to consider the possibility that some of the problem may have been in my own previous communications, if I missed an opportunity to elaborate these considerations in a degree of detail that might have improved comprehension, or could have simply added more stress and emphasis to key concepts in a way that might have made the business and functional context and issues harder to overlook.

To avoid any possibility of continuing such an error, I will describe the business and functional context more completely now.

Essence of the Invention

Problems Solved

The most important function of Pinpointer is to enable the Internet to be a viable alternative to existing media outlets, like record labels and magazine publishers, and ultimately to supersede them, by:

- enabling consumers to find content that is better matched to their individual tastes than what is offered by existing media outlets, and
- enabling more content creators to connect with their natural markets.

Initial Enabling Insight

Directly or indirectly, most of Pinpointer's capabilities arise from the insight that in the final analysis, the most important business service that record labels, magazine publishers, and other contemporary media outlets perform is to match content to tastes.

Although the significance of this function currently goes unacknowledged (virtually no existing record label, publishing house, movie studio, or other media company would describe its core business function in this manner), it is essential for the successful dissemination of content on any scale, whether in traditional form or via the Internet.

It is also virtually the only function that media businesses are not currently in the process of shedding. Today, the creation of the product is typically left to other entities—whether bands, authors, or independent movie directors and producers—as is manufacturing and distribution and even, to an increasing degree, financing.

The function of matching content to tastes, however, remains as central to the industry, and therefore as closely held, as it ever was. It is just not typically conceived or described in this manner. Record labels, for example, call the process of discovering content that people might like “artist development,” and refer to the process of making people aware of its existence in the same way that nearly everybody does, as “marketing.”

The continuing reliance on these traditional terms and their associated ways of seeing the media business, rather than looking a level deeper to see the business' underlying core function, has impeded the industry's ability to devise creative adaptations to the Internet age.

The Necessity of Consumer-Oriented Filtering

The music business is a good example of how the process of matching content to tastes works in the traditional media environment that prevails today.

Most consumers think they are making their choices of what records to buy based on listening to whatever music is "out there." But in actuality, the music that consumers are aware of is only an infinitesimally small percentage of what is being created. Enormous quantities of material are continually being produced, by musicians of all types and styles. This material is winnowed down by the major record labels, which choose to release and promote only a tiny fraction of it on CD, based on critical judgments about how many people, and of what types, might find it appealing. The still-substantial mass of material that is released by record companies is then winnowed down again by radio stations, which choose to play only a small subset of what the record labels have released. Consumers then find radio stations that play music they enjoy, and make their purchases from among the songs they hear on these stations.

Having this sort of effectively pre-screened subset is critical, because very few people are willing to rummage through large quantities of material that is unlikely to appeal to them.

People *do* tend to want to expand their horizons beyond the same top-40 songs that are played all over the airwaves. They are very much interested in finding music that they feel speaks more personally to them, and even *for* them. They are just not willing to have the experience of finding this material be arduous, drawn out, or frustrating. They want it to be more like stumbling onto a new favorite restaurant or store—where they can immediately see that almost of the items offered are to their liking.

The same principle applies to written content and other forms of media. Most people are interested in discovering new writers and other content creators, but not if this involves logging tediously through large quantities of material they find unappealing.

In order to provide a viable alternative to existing media companies, the Internet must do two things:

- The online alternative must put users in contact with material that is not already available through traditional media companies. If all the Internet is good at is enabling people to buy content they are already aware of, it cannot be more than just another retail distribution channel—and traditional media companies will continue to form the core of the business, because they will continue to perform the most important business function of matching content to tastes.
- The Internet-based option must present this new content in a way that shields consumers from the necessity of rummaging through large quantities of material they are unlikely to find appealing. It is not enough to make appealing content

available; it is also essential to make the experience of finding it enjoyable. To do this, *unappealing* content must be effectively banished from view.

The current state of the Internet reflects a failure of the existing media industry to grasp these two key principles.

It has been many years since visionaries began predicting that traditional media companies were about to be supplanted by the Internet, based on the Net's freer and more open distribution channels enabling the proverbial "thousand flowers" to bloom. This transformation has yet to occur.

The failure has not been for lack of people trying to sell music online. An enormous amount of music that has been released by means outside the major record labels is already available on the Internet.

The main reason for the failure has been the lack of an effective means of filtering online content to match tastes.

The Limitations of Existing Internet-Based Methods

Filtering services do not currently play a significant role in Internet distribution of media content, because no truly viable service of this type exists today.

The following are the main types of filtering systems currently available for web content, along with some of their most salient shortcomings.

Collaborative Filtering

This is a method in which users evaluate and score content, and items are ranked for presentation to the user based on a tallying of evaluators' scores.

The core problem is that the evaluators are implicitly considered equal, when in actually not all evaluators *are* equal. The material that large numbers of undifferentiated evaluators agree on actually tends to represent a lowest common denominator.

To expect users to flock to material chosen by such a method would be analogous to expecting listeners to be drawn to a radio station that determined its play lists simply by playing the songs that other stations played most, when what people actually want is the distinctive taste and judgment of a skilled radio programmer.

This is especially true when people are looking for music that is not already available through traditional media companies—the only kind for which the Internet can truly supersede the existing industry. People require this kind of content to appeal to more specialized tastes (and in their view, more refined ones), not to more common ones.

Another key flaw of collaborative filtering is that is too vulnerable to "gaming the system." The early stages after content appears in a system of this type are crucial in determining which new songs rise high enough on the list to be visible to a more general audience. But at this early stage, it is easy for bands that may not be particularly talented, but whose members happen to have a lot of friends, to garner enough positive

reviews to effectively push aside more genuinely capable, but less gregarious, musicians. The more talented musicians then never bubble up close enough to the surface for more general audiences to become aware of their existence, and for this broader population to begin providing feedback that is less biased and more useful to consumers at large.

Recommendation Lists

To their credit, recommendation lists make the important leap of allowing users to specify someone whose tastes they trust. Unfortunately, the recommendation lists currently in existence do not allow users to concurrently choose a content category.

Most lists of this type (for example, those on MySpace or in *iTunes*' Celebrity Playlists) are not organized into meaningful subcategories. Even when they are, the user cannot tell what categories will be available until after he gets to the recommender's list. This arrangement renders a more centralized service on the scale that would be needed to represent a significant alternative to existing media companies unfeasible, because it unavoidably entails trips from the central page to individual recommenders' pages that are wasted, since the user finds only upon arrival that nothing of the particular type he wanted has been recommended there.

In addition, such systems tend to require the user to first know that a given "taste maven" exists and is worth consulting, in order to be able to go to an online page laying out this person's picks. This effectively eliminates large numbers of potentially valuable recommenders from consideration.

Push-Based Automated Recommendations

In services of this type, a computer program detects patterns among users' choices, searches a database to learn what other items have been chosen by users who have selected the item chosen by the current user, and then recommends these other items to the current user.

While such services can be useful within their limitations, they are inherently restricted to making inferences based on past activity and patterns. They do not do a good job of handling what a given user wants *right now*—so that, for example, if a user has selected only classical music to date, they will not recommend country music today, even if that is what the user really wants at the moment.

In addition, because they are push-based advertising, these services are ultimately in the same category as junk mail (just a very well-targeted form of junk mail). They would need to be pull-based (i.e., presenting content in a manner that is actively *sought out* by the user, like the Yellow Pages) in order to render the experience of finding music online satisfying enough to users for the Internet to provide a viable alternative to the existing music business.

The Net Effect of Existing Methods' Limitations

Because none of the above methods does as good a job of matching content to tastes as traditional methods of utilizing the judgments of people in record companies and radio

stations, none of them has made possible the rise of a major “go to” location to find new music online.

The result is that while music by existing megastars whose creative output is under the control of major record labels is easy to find, the process of finding independently produced music (the kind on which an alternative to the existing music industry would need to be built) remains difficult and frustrating. The problem is not that there is too little independent music available, but that within this realm, users are subjected to far too much material that does not align with their tastes.

In essence, for today’s Internet user, the experience of looking for new, “undiscovered” music is like walking into a music store the size of a hundred Wal-Marts, where none of the CDs for sale are organized in any discernible manner, all of them are in plain brown wrappers, and the only way to check them out is to slowly and painstakingly play each song in its turn.

As long as the Internet fails to offer consumers a viable pre-screening alternative to buying music that they have already heard of through the content-and-taste matching actions of major record labels and radio stations, it cannot be anything more than an adjunct to the existing music business.

How Pinpointer Fills the Filtering Void

Pinpointer alters the underlying equation. By enabling users to choose recommenders whose tastes they trust, in much the same manner that they currently choose radio stations that broadcast music they tend to enjoy, or magazines that publish freelance articles they tend to find interesting, Pinpointer gives the Internet one metaphorical “leg” to use in catching up to existing media outlets.

Pinpointer provides the other leg by simultaneously enabling the user to specify the type of music or other content he is interested in at any given moment. In this area, Pinpointer enables the Internet to not just equal, but surpass existing media outlets, because of its greater immediacy in meeting his interests. For example, if the user wants to hear a particular type of song—female or male lead vocalist (or entirely instrumental), slow or fast, etc.—he no longer needs to passively wait until something of this type happens to be aired in its allotted time slot on a radio station’s playlist. He can go immediately to songs having these characteristics.

In addition, the characteristics that the user can specify include not only traditional criteria like genre (e.g., Classical, Pop, Rock, Hip-Hop, Country, Jazz), but also categories that describe what subjects songs are about (love, death, freedom, trucks, beer, dogs, etc.), what instruments they feature, or what types of circumstances they would be appropriate in (for example, a long road trip or a romantic evening for two).

More significantly, Pinpointer improves the content filtering function by solving certain underlying structural problems of traditional media companies.

Increasing the Pool of Reliable Filters

One key structural problem that afflicts virtually all contemporary media companies is the economic unfeasibility of hiring enough people to competently assess all the material that is submitted for consideration.

As a result, the biggest barrier that most musicians face today is not that record companies reject their demos as being of insufficiently high quality, but that they cannot get anyone at the record labels to *even listen to them*. Likewise, at publishing companies, unsolicited manuscripts, if they are accepted at all, are read by only the most junior-level personnel on hand—most often unpaid interns. Many publishers have tried to offload the task of evaluating manuscripts to literary agents, but all this has actually done is overload the agents.

It is widely acknowledged that existing media companies overlook a good deal of talent and high-quality material that would appeal to significant and lucrative markets. The music industry's belated recognition of the talents of, for example, Bonnie Raitt and various contestants in the *American Idol* television program provides a striking commentary on the existing industry's limitations.

However, the hard fact is that it is not economically feasible for media companies to pay more people to evaluate material than they do today. (If it were, one or more companies would have done it.)

Pinpointer changes this aspect of the media business by substituting an unlimited number of independent, entrepreneurial content evaluators beating the bushes for new material, in the knowledge that, if people find it through their recommendations, they will be economically rewarded—and potentially, quite handsomely.

In the area of music, these content evaluators will range from noted critics and writers for publications like *Rolling Stone* and *Entertainment Weekly* (a significant number of whom have already expressed interest in screening material for Pinpointer) and currently popular musicians, down through music writers for local alternative newspapers, people who book bands for clubs, savvy record store clerks, even popular bloggers on services like MySpace and Facebook.

An Environment that Rewards Many Types of Recommenders

In this environment, it is only natural for “big name” content screeners to ultimately be the ones whose recommendations people most often seek out. However, it is important to ensure that lesser-known “foot soldiers” are also fairly compensated for their contributions. The latter are needed to provide the initial filtering for a chain of successively better-known entities. If the lesser-known entities stopped performing their necessary screening functions, the big names would be left without a viable way to focus on material with a higher likelihood of meeting their standards, and they would return to simply reviewing material that had been pre-filtered by the existing music industry. The independent distribution model would then collapse.

To prevent this from occurring, Pinpointer has designed an equitable way to compensate screeners whose recommendations bring content to the attention of the big names to whom most people will ultimately turn for most of their recommendations.

Other Ways that Pinpointer Provides Better Value to All Participants

By enabling more people to evaluate content and match it to tastes, and by enabling users to say more precisely what they are currently looking for (e.g., classical horn concertos that would be good for a dinner party), as well as by enabling them to specify whose tastes they trust, Pinpointer provides consumers a significantly better way to find what they really want—as opposed to just settling for what a lot of other people have chosen (and may also have just settled for).

The Pinpointer model also enables the people who play the most significant roles in making music available to be compensated more appropriately, correcting a number of defects of the existing music industry:

- In the existing music industry, even the top recording artists are paid little or nothing for the sales of their CDs. (Recording artists make virtually all their money from concerts.)
- Knowing that the recording artists gain little benefit from legitimate sales of their work is a powerful rationalization for consumers to download music illegally.
- In the existing music industry, even the most respected critics, reviewers, and music writers tend to be poorly paid.

In Apple's *iTunes*, the primary online venue of the existing music industry, for each song sold for a flat 99 cents, about 65 cents goes to the record label, and about 34 cents goes to *iTunes*.

With Pinpointer, where the expenses of artist development and marketing (matching content to tastes) are eliminated by using independent, entrepreneurial taste mavens, the 99 cents taken in for each song can be split as follows:

65 cents to the recording artist

25 cents to the recommending "taste mavens"

9 cents to be split between Pinpointer and the download service from which the song was purchased.

In other words, Pinpointer gives everyone a better deal.

True, Pinpointer and the download site do not get as much per song as record labels and *iTunes* currently do—but both are more than happy to accept this smaller share of a larger market.

Synopsis

Pinpointer uses an unusual insight, that the essence of what today's media companies do is match content to tastes, as a springboard to enabling the Internet to compete effectively with them.

Turning this initial insight into a viable service has required fashioning solutions to a series of previously unrecognized problems along the way.

- Because users will not be willing to rummage through unfamiliar content, trusted recommenders need to pre-screen it for them.
- Because at least initially, those who are willing to recommend unknown content will not be any better known than its originators, some method is needed to help users choose a recommender, or the service will fail.
- Presenting recommenders in order of their popularity (claim 9) will help solve this problem, but:
 - Popularity needs to be assessed within an appropriately scaled subject area—not just a single narrow category like “Road Trip Music,” yet also not something as broad as just “Music.” Accordingly, a method of assessing relevance of popularity in other categories based on the “family relationship” of the user-specified search category to other categories (e.g., parents, children, cousins, etc.) was devised, and was further refined to enable system “tuning” to different levels for different categories based on adjustable parameters. This technique is described in claim 11.
 - Recommenders who somehow manage to attract initial interest, but whose actual recommendations tend to disappoint users, will need to be moved substantially lower on the list, if the service is to have the credibility and user trust required to succeed. The technique of factoring in quick returns back to the search results page (claim 7) was developed to accomplish this.
 - Lesser-known recommenders will need reassurance that the financial value of their efforts will not be lost when “big names” who are more likely to be selected by users move in and recommend the same material they have. An appropriate compensation system was devised (claims 1 and 10) in order to keep the lesser-known recommenders who make the system possible for everyone from stopping their efforts and rendering the service as a whole unfeasible.
- In order to gain acceptance as an alternative to existing media companies, the service needs to offer clear, readily-perceived ways in which it not only matches them, but also outdoes them. Accordingly, a new approach to content categories was developed, which enables the categories to be better aligned to the attributes of music that users may actually be seeking—for example, “Road Trip Music” or “Seduction Music”—than the simple genres that traditional media companies limit themselves to.

The representation of obviously subjective judgments, such as whether a piece of music would be likely to evoke romantic feelings, in a manner that can also be straightforwardly processed by a number-crunching computer, represents an unusual blend between objective and subjective factors (claim 2). While system designers normally go to great lengths to structure “hard” or objective data in optimal ways, “soft” or subjective information tends to be almost automatically relegated to mere text—a simple, amorphous lump of characters that is unsuited to anything more than the simplest character-string manipulations.

The end result of solving this series of problems is, as elaborated previously, to finally provide the Internet with the capabilities it needs to seriously challenge the traditional media industry—by enabling more people to find content they like, while at the same time helping more content creators to connect with their natural markets; and in the process, compensating all parties in a manner more commensurate with the actual value of their contributions.

It is difficult to see how this could be considered a trivial achievement.

It is also not one whose method of attainment strongly suggests “obviousness.” Anticipating and devising solutions to a string of problems that are not generally known even to exist, in order to make a method feasible whose value is unrecognized at the time of the invention, because it depends on an uncommon strategic insight into the evolving nature of an industry, goes beyond the normal meaning of the term “obvious.”

RELEVANCE OF THE PRIOR ART CITED BY THE EXAMINER

The main essence of the examiner’s actions to date has been to point out that various components of Pinpointer existed beforehand elsewhere.

I do not dispute that Pinpointer uses many common components. In fact, a key aspect of my argument is that the shared components are *so* common and *so* simple that they are the equivalents of bolts, rivets, and sheet metal in mechanical inventions.

The examiner has stated that it would be obvious how to combine these elements, if someone wanted to do so—and he is right, up to a point. It is obvious in the same sense that it would be obvious how to use bolts or rivets to fasten sheet metal in the process of constructing, say, an airplane or steamship.

But first, someone has to design the airplane or steamship. This is the factor that the examiner has not taken into account.

Although the prior art that the examiner has cited shares many components with Pinpointer, all of it is incapable of accomplishing what Pinpointer does: enabling the Internet to provide a viable alternative to traditional media businesses, and potentially supplant them. My invention is what renders this objective attainable.

Main Inventions Cited by the Examiner

Of the examples of prior art cited by the examiner to support a finding of obviousness, the following have relevance to Pinpointer's primary functions.

Covington: One-Size-Fits-All "Right Answers" and Custom Commissions

Overall Nature of the Invention

Covington, the inventor whom the examiner references first and most frequently, describes a system whose main essence is having a single, non-selectable entity (whether an individual, an ad hoc group, or a more formalized organization) determine what the user should be presented with when seeking content within a particular category.

This arrangement is well adapted to the needs of a company seeking to provide controlled and consistent information to its employees, as Covington describes in his application. However, it is fundamentally unsuited to consumer media, where no one's judgment of a song, an article, or a piece of audiovisual material can be considered "correct" or appropriate for all users.

Covington's invention is also more poorly suited to consumer media than a much better-known service based on the same principle of a single content gatekeeper, which has been in existence longer: About.com. Far from teaching Pinpointer anything about how to supplant existing media companies, About.com is an example of prior art whose limitations were specifically elaborated in my patent application as an example of why Pinpointer is needed.

One aspect of Covington's design that the examiner has held to be especially pertinent to Pinpointer is an accessory feature that enables someone (who may or may not be the end consumer of the content) to designate a particular expert as being someone whose judgment he trusts.

However, in Covington's invention, this trusted expert does not perform the crucial behind-the-scenes filtering function on which the successful dissemination of consumer media content depends. Instead, Covington's selectable expert *creates new* content, in cases where the existing database has failed to provide a satisfactory answer to a user's question.

This is simply a web-based version of a function that was in existence for centuries before Covington's birth: the commissioning of someone to perform custom work, like commissioning Mozart to write a new symphony, or commissioning Michelangelo to paint frescoes on the ceiling of the Sistine Chapel.

While it is possible that the Internet age may open up a small niche market for humorous ditties composed in honor of, say, birthdays or workplace events, the notion of a system of one-off, custom works making serious inroads into the existing record businesses is unworkable on its face.

Thus, overall, Covington's is simply another invention making use of common practices, such as seeking out the opinions of people we trust. The fact that it does so online does not in itself make it a source of guidance for Pinpointer.

Specific Features Referenced by the Examiner

The examiner has identified a number of components of Covington's invention that are similar to ones utilized in Pinpointer. They include the following, whose commonality is not disputed:

- Storing a set of categories that can be used to describe content.
- Assigning content to these categories.
- Displaying search results.
- Displaying more information when an item is selected from a set of search results.

The examiner also describes certain other purported similarities between Covington and Pinpointer that do *not* stand up to closer examination:

- Displaying content categories. (NOTE: Here, Pinpointer's claim could be clarified by adding "to the user." I thought this was clear from the context of the claim, but if there is any confusion about it, I am certainly willing to add the further clarification to the claim.) The section of Covington's application that the examiner cites, paragraphs 0045 and 0047 (see office action, page 7), does not describe displaying categories at all. It is about a Database Manager's activities of posting, indexing, and cross-referencing the content items on a web site. As part of these activities, he may *create* a new category, but there is nothing in the cited paragraphs about displaying pre-existing categories—not to the Database Manager, and certainly not to the user.
- Sharing incentives among early and late categorizers. Here, the examiner cites Covington's paragraphs 0044 and 0046, which are also about something entirely different—a Database Manager maintaining the information in a database, including ensuring that it is up to date. As part of this process, a Database Reviewer may check (and perhaps modify) the Database Manager's work, in Covington's words, "mostly for format or other non-substantive attributes."

The examiner has chosen to characterize this interaction as an example of two people categorizing the same item in the same way. Later in his findings, he will go on to combine this with another invention's method of sharing fees to declare Pinpointer's sharing of incentives among early and late categorizers obvious. However, the examiner has made an unwarranted assumption.

Nothing either explicit or implicit in Covington's description suggests that the Database Manager and Database Reviewer might ever make separate categorizations of a content item. In fact, it would be highly illogical for Covington's Database Reviewer to re-categorize an item in exactly the same way as the Database Manager, since it would require extra effort, and nothing would

be gained from the action. Even if the Database Reviewer were to separately and independently concur with the Database Manager's categorization, there is nothing in Covington's description to suggest that any record would be made in the system of two separate categorizations. Thus, there would be nothing in Covington on which to base a later sharing of credit as described in *Montemer*.

Relevance of Citations to Novelty

The latter two Covington components, which do not in any reasonable sense correspond to the Pinpointer functions the examiner has used them to reject, should be removed from consideration on that basis.

Of the four specific functional components cited by the examiner that are indeed shared by Pinpointer and Covington, three do not shed any useful light on the essence of the work that Pinpointer performs. These include establishing categories that can describe content, and displaying and choosing from search results.

In actuality, these three are just marginal accoutrements of searching, and have little to do with the search itself. If the search is to be directory-based (like Pinpointer or the original Yahoo search, rather than based purely on freeform typing of search criteria, like Google), then it goes without saying that there must be pre-defined content categories. As for displaying search results and enabling the user to click on them to get more information, of course these also have to be present, because immediately displaying the content items themselves, without enabling the user to first choose among them based on summaries, would be unwieldy. Finally, regarding moving from summary descriptions to the content items themselves, what would be the point of a search if it did not have the capacity to present its ultimate results?

The only aspect of Covington's invention that touches on core elements of searching is the process whereby a human Database Manager applies a category to a content item. However, this in itself is not sufficient to connect users with content they are likely to enjoy, because it fails to accommodate different users' varying tastes. Instead, it reflects precisely the kind of one-size-fits-all approach that was highlighted in my patent application as a key reason why prior art like *About.com* is inadequate.

By itself, therefore, Covington's invention has nothing significant to teach Pinpointer—whether in the attainment of its broader purpose of providing a viable online alternative to existing media businesses, or within the more limited realm of enabling users to find the kind of Web content they will enjoy.

Pundarika: Users Reading Textual Reviews

Overall Nature of the Invention

Pundarika's invention is an online bookstore that is intended to be more convenient for users to browse. One auxiliary service it provides is easy online access to book reviews.

The examiner has cited Pundarika as an example of relevant prior art because it has users relying on the judgments of trusted third parties in determining what content they might find appealing.

Specific Features Referenced by the Examiner

The examiner has cited the following Pundarika components as being shared by Pinpointer. Their common use is not disputed.

- User selection of a category in which he seeks to find content.
- Displaying people who have made taste judgments within a user-specified category.
- Selecting a particular “taste maven” whose recommendations the user trusts.

The following purported commonality of functionality cited by the examiner is what needs to be reassessed:

- Initiating a search for content items based on the category and taste expert specified by the user.

The issue here is that what Pundarika’s invention actually finds is not a content item the user seeks, but rather a *review* of the content item, which the user must then read to determine if he might be interested in the content item itself.

Relevance of Citations to Novelty

The components whose commonality between Pundarika and Pinpointer are uncontested are as common as nuts and bolts in mechanical inventions.

- Users have been selecting categories in which they wish to find content from library card catalogs, *The Reader’s Guide to Periodical Literature*, software “Help” lookup screens, and indexes included in everything from automobile owners’ manuals to federal regulatory documents for many, many years.
- Choosing a particular individual for a recommendation on potentially desirable content is likewise no different from common practices such as consulting Gene Shalit or Ebert & Roeper about the merits of a movie.

As for the contested component, being guided to a *review* is different in a fundamental way from being guided to *pre-screened* content items themselves, because with reviews, all the “heavy lifting” of filtering still needs to be done by the user, after reading and assessing the reviewers’ verbiage.

When dealing with large volumes of material, of which 90% or more typically will not meet the user’s tastes, requiring a user to read a review of every single content item before it can be eliminated from consideration is simply not a viable filtering mechanism. The volume of the available material is too overwhelming for this.

As noted earlier, to provide a viable alternative to existing media companies, an online service must provide an environment in which the user does not have to even be *aware* that content exists, unless there is a good chance he will find it appealing. The

unappealing content must effectively disappear from view, as it does when filtered by today's media companies in the traditional model.

Because Pundarika's invention cannot provide the kind of immediate, effortless filtering that is performed behind the scenes on the user's behalf by traditional media companies, it cannot serve users' interests as they do, and therefore cannot enable an online alternative to take their place.

Even within the more limited context of searching the Internet, a substantial amount of filtering must be performed behind the scenes in order for a service to be viable. The Internet encompasses vast and ever-growing amounts of material, and to expect users to read traditional textual reviews of this material as a means of filtering would require far too much time and effort on the part of the user (a type of exercise that is sometimes referred to as "boiling the ocean") to ever be considered a practical approach.

A Possible Objection by the Examiner

To anticipate a potential objection to this line of reasoning, it is possible the examiner might contend that if someone wanted to go straight to the content that has been reviewed, rather than to the reviews that Pundarika provides, it would be obvious how to modify Pundarika's invention to do so. However, such a contention would not only ignore the question of where the motivation to make such a modification would come from, it would also run into a number of practical issues involving implementation.

- At the tactical level of *how* to combine components, modifying Pundarika's invention to bypass the need for the user to read reviews, and instead go straight to appropriately filtered content items themselves, turns out to be neither simple nor obvious.
 - A simple link from the reviewer's results set to the content item would not provide the needed filtering effect, because the reviewer could as easily have written a scathing critique of an item as a recommendation of it. Merely seeing content items that a taste expert has reviewed, without knowing the essence of these reviews, is of no value to the user.
 - Translating the reviewer's assessment of an item into a simple Like/Don't Like evaluation might work for unknown, ordinary users, but not for the better-known critics whom users would more typically want to select. Reviews by major critics tend to be nuanced and complex. For example, a critic might describe a new movie by a prestigious director as being superficially entertaining, but lamentably unsatisfying on any deeper level. Such a critic will not want his subtle and carefully worded observations "baby talked" down into a simple declaration of "I liked it" or "I didn't like it."
 - It might be thought that the text of reviews could be somehow scanned by the computer to determine what was being said. However, this is also highly problematic.

For example, what if the user wanted material that was "wryly witty?"

Simply scanning review text for these words would not produce a useful result. In reviewing hypothetical author John Smith's book, *The Reason for Everything*, a critic might have written the following:

Dorothy Parker once observed of a new release by a major author, "This is not a book to be tossed aside lightly. It should be thrown with great force." There is probably no contemporary book to which Ms. Parker's wryly witty observation better applies than *The Reason for Everything*. Mr. Smith's thesis is simultaneously shallow, ineptly stated, overblown, and four times longer than there is any possible justification for it to be.

If a user were to specify the search term "wryly witty," virtually any form of text matching would come up with *The Reason for Everything*—which is exactly the type of content the reader does *not* want to have to rummage through.

- Pinpointer solves the problem of accommodating the complexity of critic's reactions via its method of rendering subjective descriptions that a critic might embed in the text of a traditional review, such as "wryly witty," into database categories that can be easily and reliably processed by a computer to perform high-speed filtering on the user's behalf, as described in claim 2.
- Pinpointer enables a critic to apply both positive and negative categorizations to a single content item, in the same complex and nuanced way that he would in a more traditional textual review.
- It is unlikely that anyone would solve all the implementation-level issues described above by sheer happenstance. To do so requires concentrated focus in a number of areas where the questions themselves are far from obvious. What would cause a person to devote so much mental energy to the task, other than the insight that there is something fundamentally inadequate about reviews as they are traditionally known, when these are applied to the task of helping users find unfamiliar online content that they might like?

Pundarika certainly does not acknowledge this, because he uses traditional reviews.

Who *does* acknowledge the deficiency?

Thus, it is not obvious at all how to move away from having the user perform all the work of filtering himself, after reading Pundarika-style reviews, and advance to a service that pre-screens it for him, as Pinpointer does.

It should also be noted that this holds true regardless of whether Pinpointer's function is considered in its more fully-elaborated business context of supplanting existing media businesses, or just within the more limited context of enabling users to find content they are likely to enjoy on the Internet.

On balance, therefore, Pundarika cannot be said to do anything more than touch tangentially on the technique of relying on trusted taste experts to find material the user might enjoy. By itself, it does not teach Pinpointer anything of significant value.

Robinson: Automated Taste Matching Involving Some User Choice

Overall Nature of the Invention

Robinson's invention has a good deal more ability to facilitate Internet-based distribution of content than either of the other examples of prior art cited by the examiner that have been addressed to this point. This is primarily because Robinson does much more than the other two to perform the crucial filtering function, and does so in a way that acknowledges that different users have different tastes.

Robinson's system is based on "taste clusters," which reflect relationships between liking some items and liking other items. However, this system is ultimately an example of the approach whose limitations were called out in an earlier section of this document entitled "Push-Based Automated Recommendations," within the larger section on "The Limitations of Existing Internet-Based Services." In fact, Robinson's invention might even be the *source* of well-known existing automated recommendation systems, such as Amazon.com's, that are based on the principle of "if you liked that, you may also like this."

Robinson does mention the *possibility* of users actively selecting taste-based content clusters as a way of exploring new material, but this can only actually occur when the cluster has been created and named by a human being—which is not the case for the majority of clusters. Even in the subset of cases where the user has the ability to actively specify a cluster, all that the user can actually base his choice on is the cluster's name. He has no way of differentiating between one cluster with a highly appealing name whose contents he would find thoroughly *unappealing*, and another cluster with a dull or unappealing name whose contents he would greatly enjoy.

Robinson's answer to this problem is to present the names of the clusters in a sequence based on conformance with other choices made by the user—i.e., more of the principle of "if you liked that, you may also like this."

On balance, although it has undeniable utility in facilitating online distribution of creative content, Robinson's invention is ultimately nothing more than the kind of automated recommendation system whose inadequacies were elaborated at length earlier in this brief, in the section on "The Limitations of Existing Internet-Based Services."

Specific Features Referenced by the Examiner, and Their Relevance to Novelty

The examiner's specific references to Robinson's invention and what it was adjudged to teach Pinpointer consist of the following:

- The examiner states that Robinson teaches Pinpointer the practice of paying taste experts based on the degree to which their recommendations are consulted by users.

This is actually something that has existed in media culture since long before the emergence of the Internet. For example, reviewers of books, music, and movies in the print media have traditionally been paid based on how large a readership they attract to the newspapers and magazines for which they write. In the more modern era, television entertainment critics' salaries are tied directly to the number of viewers their TV news segments attract. Robinson's invention, while useful in numerous ways, does not teach anything noteworthy in this area.

- The examiner states that Robinson teaches Pinpointer the technique of sequencing reviews of online content according to “the degree to which each individual user likes a particular reviewer.” The issues with this reference are that:
 - The degree to which a user is adjudged to “like” a reviewer in Robinson’s invention is ultimately a matter of computing conformance with other choices made by the user—making this another variant of the “if you liked that, you’ll also like this” principle. This is admittedly a fine way to sequence the initial presentation of taste experts before the user selects one. However, Pinpointer utilizes an entirely *different* initial sequencing method, which is based on the taste expert’s general popularity. (The only way that Pinpointer comes to the conclusion that a user “likes” a given taste expert is when the user *actively specifies* that taste expert as a recommender.)
 - In Robinson’s invention, the point of the exercise in which taste experts are presented to the user is to enable the user to self-filter content by reading textual reviews. This is a technique whose unsuitability for providing a viable online alternative to existing media companies has already been elaborated at some length in various places in this brief, most recently in the section on Pundarika’s relevance. It is another technique that Pinpointer has deliberately steered a wide berth around.

Since Pinpointer does not actually use the Robinson methods cited by the examiner in these two areas, it cannot reasonably be said to have been taught anything by them.

Inventions Illustrating Miscellaneous Techniques

The remainder of the prior art cited by the examiner illustrates techniques and methods that are more incidental to Pinpointer’s primary function. They consist of the following:

Montemer: Sharing Fees from Paid Phone Directory Listings

In his latest office action, the examiner has referenced a system in which one local telephone company’s directory information service can split a fee with another local phone company’s service, if a customer of one company seeks out a type of business listed in the other one’s database.

Without question, this example demonstrates that referral fees based on categorizations made in a database can be split among multiple entities. However, there was never any

reasonable doubt that this could be done, and anyone of ordinary proficiency in the art could have devised multiple ways to go about it.

The novelty of the Pinpointer invention is in anticipating the *circumstances* in which fees must be shared, to prevent latecomer “big names” whose recommendations users are most likely to be consulted by users from claiming all the benefits of the valuable prior labor performed by “little guys” in unearthing noteworthy new content.

Montemer has nothing at all to say about handling such an eventuality. It thus provides no significant guidance to Pinpointer. On balance, it is simply an unneeded illustration of a common function in the business world.

Edwards: Learning About Cyber-Threats

Edwards describes a system for monitoring Internet news sites, e-mail distributions, discussion forums, etc. that may contain useful information about how to protect computer systems and networks from malicious intrusion. A certain amount of categorization is performed, in terms of the type of cyber-threat, its source, etc., but not in any way that is substantively different from the manner in which a traditional librarian would categorize a book.

This is also primarily a push-based service, whose main purpose is to send relevant information *out* to clients. It is not fundamentally pull-based, (i.e., with the user actively seeking out content that meets selection certain criteria). There is also no opportunity for the user to specify a particular analyst whose categorizations he trusts.

It is therefore unclear why the examiner felt this had relevance to Pinpointer, or why he singled out paragraph 0016 in particular, other than the fact that it happens to contain the words “analyst,” “reviews,” and “intelligence” in the same sentence.

Boyd: Arranging Meetings for Networkers

This is a service targeted at business travelers with “down time” that enables them to spend their empty hours more productively, by engaging in personal and professional “networking.” The service allows such people to post or respond to invitations to networking meetings.

In the paragraph cited by the examiner (0052), Boyd notes that charging a fee for these activities would tend to cut down on the volume of non-serious or prank-oriented activity. What the examiner is apparently using this reference to establish is the time-tested principle that people tend to make more careful use of things they are required to pay for.

This is another functional component that is so common that it is in the same category as bolts, rivets, and sheet metal.

Gonzalez: Self-Serve Directory Listing Service

Gonzalez’ invention is a listing service enabling individuals, businesses, and other organizations to help themselves be found online by users who are looking for what they have to offer. Part of this process involves creating web pages based on templates

oriented around the varying information needs of different types of entities, such as drycleaners or churches. (For example, a price list might be a key component for a drycleaner, but inappropriate for a church.)

The paragraph cited by the examiner (0106) enumerates various types of templates that might be created. While this paragraph does unquestionably describe various types of businesses and organizations, it will come as no surprise to anyone else that these types of businesses exist. The reference therefore has nothing more to teach Pinpointer than a simple inventory of business and organizational categories in the Yellow Pages would, or a list of business classification categories used by the Commerce Department or the Small Business Administration.

Pinsonnault: High-Level Totals and Rollups

Pinsonnault has invented a system for sharing financial information about and among various business partnerships. A single paragraph (0095) within the description of his invention is referenced by the examiner, as an example of the prior existence elsewhere of Pinpointer's technique of having all shares of credit on a recommendation sum to one.

However, what this paragraph actually describes is an accounting technique of rolling up data pertaining to various categories into a single aggregate sum. In Pinsonnault's invention, this sum would only equal one by fortuitous (and presumably rare) accident.

Combinations of Prior Art and Their Relevance

Although none of the prior art cited by the examiner teaches Pinpointer something noteworthy on its own, the examiner has adjudged that when considered together, various combinations of this art render Pinpointer obvious. The basis of this judgment needs to be reconsidered.

Covington in View of Pundarika

The examiner states on page 11 of his most recent office action that at the time Pinpointer was invented, it would have been obvious to a person of ordinary skill in the art to modify Covington's content categorizations by adding Pundarika's ability to consult a trusted taste expert "so that the resultant method *would contain*" (emphasis added) many of Pinpointer's functional components.

The examiner's choice of language is illustrative. He is not in any way asserting that it would be obvious how to achieve all of Pinpointer's net *effects*.

All he is ultimately saying is that it is obvious that combining A and B would yield A plus B. Since this can be said about virtually any two things, it is not an observation that says anything meaningful about novelty.

What a Simple Inventory of Components Misses

I will concede at the outset that to someone who already knew he wanted to combine categorizing content with selecting a categorizer, the pre-existing work of Covington and Pundarika can reasonably be said to have illustrated that these components did not need

to be created entirely from scratch. However, basing a finding of obviousness for Pinpointer simply on this observation excludes from consideration the difficulties inherent in moving from Pundarika's reviews to a workable method of filtering, as well as the more fundamental question of *why* such a combination would have been made—i.e., what recognition might have occurred that doing so would accomplish something other than simply combining components.

The point of my invention was certainly not just to combine categorized content with selectable categorizers. This was only a technique. The point of the invention was to put people in touch with richer forms of content, such as online music and electronically published writing, that would meet their tastes.

In focusing only on the components utilized, to the exclusion of any consideration of the purpose and results of combining them, the examiner's findings exhibit an after-the-fact approach to "obviousness" whose limitations Christopher Columbus once memorably demonstrated with an egg.

As the reader may be aware, after his landmark voyage to the New World, Columbus had dinner with a group of men who at one point began belittling his discovery, on the grounds that anybody could have sailed westward across the ocean and discovered this land mass. Without answering them directly, Columbus simply asked for a raw egg to be brought in and put on the table in front of them. He then challenged them all to make it stand on end. When they had all tried, failed, and pronounced the task impossible, Columbus took the egg and tapped its end against the table. This broke the shell slightly and flattened the end, enabling it to be stood up. Columbus' detractors got the point: many things look simple or "obvious" only after the way has been shown.

The examiner's responses up to this point suggest that if he had seen Columbus' demonstration, he would have called the technique "obvious" on the grounds that cooks break eggs all the time. His opinion on novelty is based entirely on working backward from an already-presented solution, and concerns itself with nothing more than assessing whether its component activities are new, or difficult to learn, or especially resistant to being combined.

In a more reasonable interpretation of novelty, attention also needs to be paid to what non-obvious realizations have enabled the invention, as well as what non-obvious capabilities have resulted from it.

Pinpointer and Columbus' Egg

The surface simplicity of my invention can be deceptive. Under the surface, it addresses certain issues, including not only those described earlier in this brief, but also others that have not previously elaborated, that should be considered before its novelty can be fairly assessed.

One prevailing "flat Earth" mindset that my invention challenged was a widespread belief that search techniques relying 100% on computerized algorithms represented the future of putting people in touch with online content.

- Approaches based on utilizing human judgment were in a state of serious (and in the eyes of most observers, terminal) decline. Even the most promising of the services exemplifying this approach, About.com, had failed to attract enough users to mount a serious challenge to the algorithm-based search services.
- Among algorithm-based search methods, less and less attention was being paid to HTML keyword tags—the means by which Web page creators had traditionally used human judgment to convey what their pages dealt with. Increasingly, it was up to the computer to determine what a page was *really* about. Algorithms had become ever more sophisticated at detecting and defeating web page creators' attempts to create false impressions of what their pages purportedly offered. An additional technique called link analysis, based on inferring a web page's value from the number of other pages that reference it, had then enabled Google to streak to the lead.

To most people in the field at this time, continuing to pursue methods of online content filtering based on the older, mostly abandoned, and generally discredited method of relying on human judgment appeared almost comically archaic. To the prevailing view of “progress” at the time, to do so was on a par with proposing that a next-generation fighter airplane be powered by coal.

I recognized, though, that richer forms of content would be coming to the Internet; and that while algorithm-based searching was useful for gleaning simple factoids (e.g., what is the capital of Albania, what are the symptoms of gout) from the relatively simple web pages of the time, algorithm-based searching was inherently ill-suited to the more complex types of material that would appear. After all, how could a computer program decide what was a beautiful song, an insightful piece of writing, or a gripping piece of film?

Thus, while Google expended large amounts of time and money exploring unproductive avenues like searching the closed-captioning text of television programs (not realizing that while this might be a fine way to find material containing the words “accountant” or “hamburger,” not many people would actually choose audiovisual content on this basis), I kept my efforts focused on finding a way to more effectively utilize human judgment.

In the end, my key realizations included the following:

- The one area where the use of human judgment was currently on the rise, collaborative filtering (discussed earlier in this brief), could not accommodate anything other than lowest-common denominator tastes, because of its inherent presumption that all filterers are equal. It was also too inherently vulnerable to “gaming the system.”
- Human judgment had actually *worked quite well* in the early days of the Internet, when the Net was used mainly by a small set of academics for purposes like sharing their scholarly and scientific papers. If such a user embedded keyword tags in his material saying that, for example, this was a paper about hydrodynamics, early searching techniques enabled anyone who was interested in this subject to easily find his paper.

- What had enabled this system to function was the credibility of the person self-categorizing his work via the tags. A professor or researcher would gain little from making exaggerated claims about what his paper dealt with, while it could cost him dearly in terms of professional reputation and credibility to do so.
- What had caused this early form of human judgment-based searching to fail was the opening up of the Internet to vast numbers of essentially anonymous people, all clamoring desperately for attention, and willing to make any kind of outlandish claims within their embedded tags that they believed might draw more users to their sites.
- Most important, there was no deterrent for making unsupportable categorizations. The worst that could happen was that a user would go off to look at another page—putting the web page publisher in no worse position than he would have been in had he never made the outlandish claim in the first place.
- The key to making a system based on human categorization viable was therefore to restore significant value to a categorizer's *credibility and reputation*.

It was seeing the situation from this nonstandard perspective that enabled me to realize that including a factor of “who do you trust?” in the central equation was the key to solving the basic problem. The user had to be able to select a trusted categorizer/recommender, and the recommender had to receive some form of valuable incentive or credit when the user did so.

Even after this part of the design was established, it proved difficult for many people to grasp. For example, a former executive for a major media web site who did some early marketing work for Pinpointer was initially very skeptical that the technique could work. Like most people familiar with the online world at that time, he had formed his impressions of incenting recommenders at a time when certain sites were paying people to drive sales of books with positive reviews, and he was concerned that paid recommendations on Pinpointer would be as valueless as these book reviews. It took a good bit of explaining before he could see that in Pinpointer, there would be a major *disincentive* to recommend material that was not actually of high quality, since a person who did this would damage his reputation, would therefore not be chosen by users, and would consequently lose his ability to make money.

I also saw that the ability to choose a categorizer/recommender would need to be coupled with selecting a category. Otherwise, what resulted would be nothing more than somebody's “favorites list,” which for reasons elaborated at greater length earlier in this brief, would be too unreliably structured to be workable as a content filter.

On balance, my core combination of components, the most fundamental of which ran exactly opposite to the conventional wisdom of the time, may not have been as dramatic as Columbus' breaking of an egg to get it to stand on end, but it was distinctly unorthodox all the same. And although its effects may not have involved the discovery of entire new continents, they were likewise unexpected. Enabling a transformation in the dissemination of media is also by no means a trivial result.

When the examiner adjudges this combination to be obvious, he does so only after the creative insight has occurred and the solution has been presented, and he considers only whether the components were unfamiliar or difficult to combine.

Just at this level, as has previously been elaborated, even the purportedly simple act of combining them actually turned out to require overcoming more obstacles than the examiner gives any indication of having considered, and was in any event considerably more difficult than tapping the end of an egg against a table.

But more important, in pursuing this line of reasoning, the examiner has not given any consideration to either the novelty of the enabling insight, or the increased capabilities the invention provides.

Because of these critical omissions, there is ultimately little difference between the examiner's assessment of my invention and calling Columbus' technique for standing an egg on its end "obvious," on the grounds that everyone knows how to break an egg. Both are "obvious" only in the lowest sense of mechanical implementation, after a novel analytical insight has done all the real work of discovery.

A More Meaningful Reconsideration

Now that the Internet has evolved along the lines I foresaw, with all manner of creative content being e-published on the Web, and with a great deal of recommendation of music, audiovisual material, and other forms of rich content now going on in social networking sites like MySpace, certain aspects of my invention may appear relatively commonplace. However, a fair definition of novelty should consider the context at the time the invention was created.

There is also more than a little irony in having a service that was once considered as outlandish as a coal-powered fighter plane now called "obvious." (*If only* the logic of the invention had been apparent to *just one* of army of venture capitalists I approached for funding earlier in Pinpointer's development.) However, in fairness, it is not the examiner's fault if VCs' self-proclaimed proclivity for "hunting in packs" is more often only a classic banker's tendency to follow the herd.

What is germane from a patent perspective, though, is that even with all the evolution that has occurred on the Internet since the filing of my patent application, the practice of selecting a categorizer along with a category to pre-screen content is still not apparent in the art. Is this indicative of obviousness?

To arrive at a finding of obviousness, the examiner has found it necessary to combine the prior art of Covington and Pundarika in a way that focuses exclusively on the question of whether someone of ordinary skill in the art who *chose* to make this combination would be able to do so without further guidance from my invention. He has consistently avoided any consideration of why such a person might choose to do so, or what the invention accomplishes.

Yet saying that it would have been obvious to anyone reading the patent applications of Covington and Pundarika how to combine choosing a recommender with choosing a

category is, in the final analysis, no different from saying that it would have been obvious to Columbus, had he read a cookbook, how to break an egg.

In both cases, the innovation lies in recognizing how to use common techniques in an *unconventional way* to achieve a *previously elusive effect*.

If a test of novelty does not recognize this aspect of innovation, then it is not a meaningful test.

Covington in View of Pundarika and Montemer

After inventorying the Pinpointer-like components that would be involved in combining Covington with Pundarika, the examiner turns his attention to Pinpointer's use of techniques that he finds similar to Montemer's methods of sharing fees among local Yellow Pages directory services. Continuing to utilize a component-centric test of novelty, he finds Pinpointer to also be obvious on this basis.

Again, his particular choice of language (page 14 of the March 2008 office action, italics added) is instructive:

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Covington in view of Pundarika to add the feature of providing incentives to categorizers and sharing the incentive among categorizers, as taught by Montemer, *so that the resultant method would comprise providing incentive to one or more categorizers based on a number of users who have selected an item categorized by the one or more categorizers and sharing the incentive among the early categorizer and the subsequent categorizer is based on the categorization of the early categorizer and allocating the incentive between (the early categorizers and the subsequent categorizer.*

All the examiner is really asserting here is that if someone wanted to add incentive sharing, they would know that this could be done, based on consulting an example of service fees being shared in the telephone business. This is ultimately just another way of stating the obvious fact that combining A and B with C can be depended upon to produce $A + B + C$.

Once again, the examiner has given no consideration to either the insight into the problem being addressed by the feature, or the nature of the improvement obtained, other than fulfillment of an apparently idle desire to add another component.

As was noted previously, the *reason* Pinpointer provides for the sharing of fees is because of its non-obvious recognition that in a service based on user-selected content categories and recommenders, the "little guys" who perform the brunt of the content-filtering work will require special means to ensure that they are fairly compensated when "big names" piggyback off their efforts. Without such a capability, lesser-known foot soldiers will not beat the bushes looking for promising content from lesser-known sources; the big names will be left without a workable supply of preliminarily pre-screened independent material, and will end up focusing their attention on material that is already known to them; users will not see a significant difference between the content

Pinpointer puts them in touch with and content that is already made available to them via existing media companies; and the service will fail.

In disregarding both the nature of the insight into the underlying problem and the particulars of the manner in which Pinpointer's inclusion of fee sharing enables the problem to be solved, the examiner has overlooked significant indicators of novelty.

Moreover, even in just his limited focus of identifying components that are purportedly shared with prior art, the examiner's finding turns out to be unsubstantiated in a crucial way. As was elaborated in the section dealing with Covington's invention individually, there is no actual description, or even a remote suggestion, in Covington that two people would ever apply the same categorization to the same content item. Without this, the examiner has found no earlier and later categorizers to split credit between. Lacking such a foundation, Montemer's sharing of fees by local phone companies becomes doubly irrelevant.

The absence of prior art showing how two categorizers might share credit for categorizing the same item in the same way appears to render the last sub-item within my claim 1 unique. This would seem to clear the way for allowance of the claim as a whole. And if claim 1 is allowed, claims 2 through 18, which reference it, should also be reconsidered.

Other Combinations of Prior Art

The examiner also references the inventions of Robinson, Pinsonnault, Edwards, Gonzalez, and Boyd in various combinations with his core components of Covington and Pundarika to adjudge Pinpointer to be obvious. He presents these additional references in the same manner as the combinations involving Covington, Pundarika, and Montemer—i.e., with no consideration given to the reason why Pinpointer utilizes a technique, or to the nature of the improvement obtained. Instead, he treats everything as just another component being tacked on, for no discernable purpose other than to add it to an inventory of components. What results is therefore nothing more than variations of the already-familiar and self-evident observation that adding A and B can be predicted to yield A plus B.

The only difference is that as the examiner progresses farther along this path, the similarities to Pinpointer's functions become less and less evident, as described in the previous analyses of the prior art examples. In the end, he is left citing components like rolling up detailed amounts in an accounting system, to produce a combined sum that will only accidentally and rarely equal the number one, as in Pinpointer.

The Outer Limits of Relying Exclusively on Inventorying Components

As another way of testing the viability of a logical principle, it can be useful to see what the principle eventually leads to, if followed consistently in all cases. The practice of considering inventions as nothing more than the sums of their components should be assessed in this light.

Speaking for the moment in a purely hypothetical sense, it is possible that this practice could be regarded, at least in some circles, as a desirable expedient to the processing of patent applications. All it would require an examiner to do is inventory an invention's components (defining the invention, in effect, as nothing but $A + B + C$), then go out and find A in some other invention, find B in another, and find C in yet another. At this point, he could rule out the invention as "obvious," because it is self-evident that combining A, B, and C would yield $A + B + C$.

The problem is, in the final analysis, this could ultimately be said about *any* invention that makes use of pre-existing elements.

Are there any inventions that do not ultimately fit this description? At least since the Big Bang, has *anything* been created that was not made up entirely of things that were already in existence?

Given that everything which has come into existence since the Big Bang is made up of pre-existing things, treating inventions as nothing more than lists of what they are made of would ultimately lead to nothing at all being capable of being patented.

In such an eventuality, if the Patent Office continued to exist, examiners could be replaced by a simple web page asking just one question: "Was your invention made after the Big Bang?" If the user answered in the affirmative, the pre-programmed answer would be "REJECTED: Obvious, because it is merely a re-arrangement of pre-existing components." If the user answered no, the response would be "REJECTED: Applicant could not be the originator of the invention, since by his own admission, the invention was in existence before he was."

If this is not what we want our system of intellectual property protection to devolve into, then the Patent Office should require that findings of obviousness be based on something more than just inventorying an invention's components and finding them in existence elsewhere.

Pinpointer has already been shown to:

- Be based on novel insights into a number of business and functional problems.
- Enable a radical improvement in the dissemination of media content via the Internet.

Its novelty should also be considered in one additional way.

PINPOINTER'S POSITION IN THE MARKETPLACE

If it were truly obvious that by utilizing pre-existing components in the way Pinpointer does, the Internet could be enabled to supersede today's media businesses, then a key question that ought to be answered is, Why has this not already been done?

It is not as if supplanting existing media companies, particularly record labels, is a goal that lacks interest for entrepreneurs. Any number of smart and ambitious entities, many of them funded as amply as an entrepreneur could hope to be, have been struggling for years to do this. Yet to date, the closest thing to a success is Apple's *iTunes* service.

To its credit, *iTunes* did recently surpass Wal-Mart, Best Buy, Target, and other brick-and-mortar stores to become the nation's number one music retailer. But despite this success, *iTunes* is still just another distribution outlet for existing music companies. Because it does not provide a viable alternative way to perform existing record labels' core business function of matching content to tastes, it has no choice but to depend on the record companies to continue performing this task—enabling the record companies to continue to control the music, along with an unreasonable share of the revenues it generates, while systematically ignoring the tastes of large numbers of consumers at the same time they fail to even *consider* vast amounts of the material being created.

With a host of competitors striving to reinvent the media business online, and none having had more than limited success, if what Pinpointer brings to the media business is indeed obvious, what can validly explain its not having been done to date?

Could the answer be that Pinpointer has some fundamental flaw? Is there something that all the existing players in the field have recognized, causing them to reluctantly forego using a method whose considerable benefits would otherwise have been obvious?

In actuality, practical experience in the marketplace has been very much to the contrary.

Industry Reactions

When leading players in the online music industry have seen Pinpointer, they have been quick to embrace it.

In 2003, Pinpointer was demonstrated to executive management of what were then two of the leading legitimate online music sites, MusicMatch and Listen.com. Both immediately wanted to become customers.

Pinpointer also elicited executive-level interest from Amazon.com.

Unfortunately, none of the expressions of interest could be consummated in contracts for services, because funding for the additional system development needed to make Pinpointer fully market-ready could not be obtained in the wake of the dot-com crash,

when virtually any new enterprise related to the Internet was shunned by investors in general, and by venture capitalists in particular.

However, in the course of searching for funding from other sources, Pinpointer found another industry admirer, in the form of the most successful legitimate online music site to date: Apple's *iTunes*.

As it happened, Apple also did not choose to fund Pinpointer. It did, however, choose to release its own version of an important Pinpointer feature, selecting trusted "taste mavens," under the name of "Celebrity Playlists" shortly after Pinpointer was presented. Interestingly, Apple also immediately enlisted the services of the *only critic whose real name was revealed in the Pinpointer presentation*—and described him using the exact same language, word for word, as Pinpointer's presentation to Apple did.

Was all this overlap mere coincidence?

The Threat of Uncompensated Appropriation

As a matter of basic prudence, I would not have approached Apple with the Pinpointer concept if I did not have a specific patent application to cite. Without this protection, it would have been far too easy to lose everything I had worked and invested in to develop.

As it was, Apple did not go so far as to combine selectable *categories* with its selectable recommenders, and there was no actionable encroachment. Because Apple stopped where it did, there is now a limit to how many songs its celebrity "taste mavens" can recommend without making their playlists overly long and unwieldy. *iTunes* therefore remains functionally inferior to Pinpointer, which means that Apple's size and established position do not give it an insurmountable advantage.

But if the Patent Office persists in dismissing Pinpointer as "obvious," and I am forced to abandon my application, I have no difficulty envisioning what may happen next.

Would such an outcome be right or just?

I have been told that if I can demonstrate significant business success for Pinpointer, this could be regarded as providing the necessary demonstration of its novelty.

However, it is not realistic to expect that Pinpointer can claim its ultimate position in the marketplace within the typical timeframe for responding to an office action. Financial constraints (including the non-availability of reliable and affordable programmers, outside of a small team of contractors in Bulgaria who hold other day jobs) have me struggling just to achieve a limited production launch in the summer of 2008.

What if Pinpointer's eventual position in the marketplace cannot be attained within the required timeframe? Will an ultimate denial of my patent claim then enable a better-funded entity to step in and achieve the business success I foretold—proving the invention's novelty, only too late for it to do me any good?

This question is related to a broader one: should an inventor's ultimate, long-term legal rights to his invention be dependent on being able to persuade a patent examiner *soon enough* of its viability in a business sense?

The Possibility of Additional Practical Demonstrations

While I believe I have made a cogent case for the allowance of my claims, and am willing to make reasonable modifications to them based on whatever guidance may be forthcoming from the Patent Office, prudence dictates that I anticipate and address a wide variety of possible Patent Office reactions. Among these, there is a possibility that the Patent Office might ask to see additional evidence that my invention performs as described—i.e., that the Patent Office might want to witness the “internal combustion engine” actually running and producing useful power (to return to an earlier metaphor), as opposed to limiting itself to reviewing design materials describing how it is intended to work.

However, if the Patent Office were to insist that Pinpointer achieve its ultimate marketplace success as an alternative to contemporary media businesses before my claims could be allowed, I would validly argue that this corresponds more closely to requiring the inventor of the internal combustion engine to show sales receipts for automobiles before allowing a patent.

I would also point out that achieving this type of dramatic marketplace success is likely to take several years—not exactly within the deadline for a response contained in the latest office action.

It seems, therefore, that in the event the Patent Office should see the need for further demonstrations of Pinpointer's efficacy, the central issue would be how to craft a requirement that is rigorous without being excessive.

If it is possible to grant a reasonable extension of time for demonstrating functional value and marketplace acceptance, I would welcome such an opportunity. It also ought to be possible to establish criteria for measuring marketplace success in a more limited way than, say, becoming the dominant way in which music is found online. These two options also need not be mutually exclusive.

PINPOINTER IN THE CONTEXT OF MORE STRINGENT STANDARDS

I believe I understand the Patent Office's recent decision to apply a more rigorous standard of novelty in granting patents. To the degree that I understand it, I applaud this decision.

I have heard, in general terms, of a recent practice involving programmers inundating the Patent Office with applications for patents on obvious combinations of algorithms that are bound to be needed in some business context, if they are not already in common use. I understand the challenges for the Patent Office in researching prior art in such

circumstances, when most of the prior art is in customized corporate data systems that would not be feasible to research.

I consider it wrong for programmers to have been able to manipulate the Patent Office into issuing patents in such circumstances that had little chance of actually proving enforceable in court, but that still carried enough threat of the delays and expenses inherent in any court action to enable the patent holders to “shake down” those who wanted to utilize the combination of algorithms, and extract a fundamentally unearned licensing fee. I feel it was a perversion of the patent system for people of this type to obtain patents as if they were putting up hotels in a game of *Monopoly*—betting that eventually, someone would land on their “square,” and be forced to pay a hefty fee.

However, I am not that type of applicant. My intention in obtaining a patent is not simply to tie up space, in hopes of extorting money from people when they attempt to do something that any reasonable person would try to do under a given set of circumstances.

I am heavily committed to providing the actual business solution. The amount that I have invested in Pinpointer to date—covering not just intellectual property protection, but a full complement of functions, of which software development is primary, and marketing has not been trivial—would be enough in some areas to buy a comfortable home. The fact that I do not own a home renders the size of this investment a credible indicator of my degree of commitment to the invention.

I have chosen to put virtually everything I have into the creation of Pinpointer because I believe so strongly in the need for it—not only as a business opportunity, but also as a profoundly liberating and empowering social force for capable people who are currently being rebuffed in their most important work by a prevailing gigantism of scale. (Included in the evidence appendix of this appeal brief is an online article of mine that elaborates more fully on the opportunities for positive change that Pinpointer opens up.)

In short, I am doing exactly the kinds of things that inventors are supposed to do, and I believe that what I am asking for is only the kind of protection for which patents were originally intended.

I therefore appeal to the Patent Office not to let the need to respond to recent manipulative and exploitative behaviors on the part of certain applicants cause the pendulum to swing back too far in the opposite direction, inadvertently rendering it impossible for reasonable patents to be granted to the kinds of people they have traditionally nurtured and protected.

ARGUMENTS: VAGUENESS

This section involves the action taken on claims 7 and 25, rejected by the examiner under 35 USC, Title 112, for use of “a relative term which renders the claim indefinite.”

I agree with the examiner that the claim of tallying users who return to the search results page after a “substantially short” period of time is vague and indefinite. I did not understand why my former attorney thought it would solve the problem of the original wording, “approximately short.” I acquiesced to the new verbiage only in the belief that it had been discussed previously in the phone interview and found acceptable, for reasons not immediately clear to a layman such as myself.

Rather than continue to operate purely on the level of semantics, I will explain more precisely how Pinpointer handles this issue.

Pinpointer uses a flexible table called BusinessRule to store a variety of processing parameters, such as the appropriate fee to charge for posting a recommendation within a given category. As noted on page 19 of the provisional application (which is actually an extract of the original design specification from which the alpha version of Pinpointer was constructed), one such entry in the BusinessRule table specifies the number of seconds between clicking on a link to a site and returning to the Pinpointer search results that will indicate that the return was “quick.”

This value was deliberately left parameter-driven, rather than hard-coded into the software, to allow ongoing manipulation of the settings in a live, production environment to yield the most genuinely useful results. My belief going in was that this would probably be about 10 seconds, but the more useful number could actually turn out to be, say, 30 seconds, depending on how long it takes the linked web page to load. It is also likely that web pages in certain categories will tend to take longer to load than those in other categories, based on their relative complexity, amount of associated graphics, etc.

To accommodate such variances, the Pinpointer model enables different content categories to have different standards of what constitutes a quick return.

Because Pinpointer was constructed without specifying a single number identifying a quick return, as the examiner apparently expected, it would not seem necessary to do so in order to enable to a person of ordinary skill in the art to create a service like Pinpointer of their own.

I would therefore ask the Patent Office's guidance on how a more acceptable description ought to be formulated, based on the clarification provided above. For example, would it be acceptable to refer to users returning to the main site "in less time than a value specified in a system parameter?"

CLAIMS APPENDIX

Following are the current claims of my patent application, as submitted in my most recently processed amendment. I have also indicated in the Status of Amendments section and elsewhere a number of changes that I would be willing to make, such as cancellations. If what this section should consist of is my proposed new claim language, modifying the most recent amendment, please advise me to this effect, and I will modify it accordingly.

1. A method performed by one or more computers for identifying content in a computer network, the method comprising:

storing a plurality of predetermined categories in a database;

categorizing a plurality of pre-existing items corresponding to one or more of the plurality of predetermined categories, by a plurality of categorizers, respectively, wherein a subsequent categorizer is capable of categorizing an item already categorized by an early categorizer;

displaying at least a portion of the stored plurality of predetermined categories;

selecting a category from the displayed predetermined categories by a user;

displaying categorizers for the selected category;

selecting a categorizer from the displayed categorizers by the user;

initiating a search for one or more pre-existing items in the computer network based on the selected category and the selected categorizer as search parameters;

displaying results of the search on a display;

selecting one or more of the displayed results for more detail description of the selected item;

providing incentive to one or more categorizers based on number of users who have selected an item categorized by the one or more categorizers; and

sharing the incentive among the early categorizer and the subsequent categorizer whose subsequent categorization is based on the categorization of the early categorizer and allocating the incentive between the early categorizer and the subsequent categorizer.

2. The method of claim 1, wherein the plurality of predetermined categories include taste and style.

3. (Canceled).

4. The method of claim 1, further comprising ordering the displayed search results based on a user selectable order.

5. The method of claim 1, wherein the step of categorizing comprises signing up on a website as a categorizer and categorizing a plurality of items corresponding to one or more of the plurality of predetermined categories.

6. The method of claim 1, further comprising charging a fee for initiating the search for the one or more items.

7. The method of claim 1, wherein the number of users who have selected an item categorized by the one or more categorizers is a function of the number of users who have selected the item and have come back to the search results within a substantially short time.

8. The method of claim 7, further comprising compensating the categorizer based on the number of users who have selected an item categorized by the categorizer.

9. The method of claim 7, further comprising positioning the categorizer on a favorable screen position of a display screen, based on the assigned points to the categorizer.

10. The method of claim 1, wherein the sum of all incentives for a given user's selection is equal to one.

11. The method of claim 10, wherein the categorizers displayed on the display screen is ordered based on one or more of a respective categorizer's overall popularity within the selected category, a respective categorizer's recent popularity within the

selected category, a respective categorizer's overall popularity within a broader subject area than the selected category, a respective categorizer's recent popularity within a broader subject area than the selected category, a respective categorizer's reliability within a user-specified subject area, and a respective categorizer's reliability within a broad subject area.

12. The method of claim 1, wherein at least one of the plurality of predetermined categories relates to music.

13. The method of claim 1, wherein at least one of the plurality of predetermined categories relates to movies.

14. The method of claim 1, wherein at least one of the plurality of predetermined categories relates to books.

15. The method of claim 1, wherein at least one of the plurality of predetermined categories relates to web pages.

16. The method of claim 1, wherein at least one of the plurality of predetermined categories relates to security or intelligence content.

17. The method of claim 1, wherein at least one of the plurality of predetermined categories relates to a product or a service.

18. The method of claim 17, wherein the product or the service is one or more of art, craft, wine, cheese, beer, plumbing, air conditioning, auto repair, haircutting, legal service, and medical service.

19. A method for categorizing an item to be searched by a user in a computer network, the method comprising:

accessing a web site by an authorized categorizer;

identifying the item to be categorized;

displaying a category from a plurality of predetermined categories stored in a database accessible by the web site;

selecting a category from the displayed plurality of predetermined categories by the authorized categorizer;

displaying cost and incentive for the authorized categorizer for the selected category;

applying the selected category to the identified item by the authorized categorizer;

storing the identified item, the applied category, and the authorized categorizer in the database;

providing incentive to one or more categorizers based on number of users who have selected an item categorized by the one or more categorizers; and

sharing the incentive among an early categorizer and a subsequent categorizer whose subsequent categorization is based on the categorization of the early categorizer and allocating the incentive between the early categorizer and the subsequent categorizer.

20. The method of claim 19, further comprising signing up on a web site as an authorized user.

21. The method of claim 20, further comprising

selecting a category from a plurality of predetermined categories;

selecting a categorizer from a plurality of categorizers; and

initiating a search for an item in the computer network corresponding to the selected category and the selected categorizer.

22. The method of claim 21, further comprising displaying results of the search on a display.

23. The method of claim 22, further comprising ordering the displayed search results based on a user selectable order.

24. The method of claim 19, further comprising charging the categorizer a fee for categorizing the item.

25. The method of claim 21, further comprising assigning points to a second categorizer based on number of users who have searched an item categorized by the second categorizer.

26. The method of claim 25, further comprising compensating the second categorizer based on the assigned points.

27. The method of claim 25, further comprising positioning the second categorizer on a favorable screen position of a display screen, based on the assigned points to the second categorizer.

28. A system for identifying content in a computer network comprising:

means for storing a plurality of predetermined categories, wherein the plurality of predetermined categories include taste and style;

means for categorizing a plurality of pre-existing items corresponding to one or more of the plurality of predetermined categories, by a plurality of categorizers, respectively, wherein a subsequent categorizer is capable of categorizing an item already categorized by an early categorizer;

means for displaying at least a portion of the stored plurality of predetermined categories;

means for selecting a category from the displayed predetermined categories by a user;

means for displaying categorizers for the selected category;

means for selecting a categorizer from the displayed categorizers by the user;

means for initiating a search for one or more pre-existing items in the computer network-based on the selected category and the selected categorizer as search parameters;

means for displaying results of the search;

means for selecting one or more of the displayed results for more detail description of the selected item;

means for providing incentive to one or more categorizers based on number of users who have selected an item categorized by the one or more categorizers; and

means for sharing the incentive among an early categorizer and a subsequent categorizer whose subsequent categorization is based on the categorization of the early categorizer and allocating the incentive between the early categorizer and the subsequent categorizer.

29. The system of claim 28, further comprising means for signing up on a web site as an authorized user.

30. (Canceled)

31. The system of claim 28, further comprising means for ordering the displayed search results based on a user selectable order.

32. The system of claim 28, wherein means for categorizing comprises means for signing up on a website as a categorizer and means for categorizing a plurality of items corresponding to one or more of the plurality of predetermined categories.

33. The system of claim 28, further comprising means for charging a fee for initiating the search for the one or more items.

34. The system of claim 28, further comprising means for assigning points to a categorizer based on number of users who have searched an item categorized by the categorizer.

35. The system of claim 34, further comprising means for compensating the categorizer based on the assigned points.

36. The system of claim 28, further comprising means for positioning the categorizer on a favorable screen position of a display screen, based on the assigned points to the categorizer.

37. The system of claim 28, wherein at least one of the plurality of predetermined categories relates to a product or a service.

38. A system for categorizing an item to be searched by a user in a computer network comprising:

means for accessing a web site by an authorized categorizer;

means for identifying the item to be categorized;

means for displaying a category from a plurality of predetermined categories stored in a database accessible by the web site;

means for selecting a category from the displayed plurality of predetermined categories by the authorized categorizer;

means for displaying cost and incentive for the authorized categorizer for the selected category;

means for applying the selected category to the identified item by the authorized categorizer;

means for storing the identified item, the applied category, and the authorized categorizer in the database;

means for providing incentive to one or more categorizers based on number of users who have selected an item categorized by the one or more categorizers; and

means for sharing the incentive among an early categorizer and a subsequent categorizer whose subsequent categorization is based on the categorization of the early categorizer and allocating the incentive between the early categorizer and the subsequent categorizer.

39. The system of claim 38, further comprising means for signing up on a web site as an authorized user.

40. The system of claim 39, further comprising

means for selecting a category from a plurality of predetermined categories;

means for selecting a categorizer from a plurality of categorizers; and

means for initiating a search for an item in the computer network corresponding to the selected category and the selected categorizer.

EVIDENCE APPENDIX

The following article, which was originally e-published in July of 2004, describes the broader operating context and functional benefits of my invention.

The article is presented in its original web-oriented format, in which synopses of the main points are presented first, and are followed by the detailed text supporting each point. This presentation technique enables the user to choose the material he wants to read in more depth, and skim the rest without missing anything he would consider significant.

In the online version, the user clicks a button labeled “Read” beside the summary-level statement that he wishes to drill down into for more information.

BREAKING THROUGH THE WALLS

Realizing the Internet's Potential-- From Politics to the Arts

By Robert Winter

The vast majority of writing today comes more out of compulsion than out of any rationally based expectation of benefit. Not only are the odds of a given piece of writing being published infinitesimally small, it's highly unlikely that the piece will get anything more than the most cursory glance by a junior-level staffer plowing through a publisher's "slush pile."

A similar state of affairs prevails in other realms of creative endeavor. To give just one example, vast numbers of capable and talented musicians are desperate for a chance to have anybody in the music industry *just listen* to their demo tapes.

A wall of indifference confronts people in creative fields of endeavor today. It is qualitatively different from traditional forms of selection or rejection based on quality--a necessary and useful process from which we all ultimately benefit. Today's barrier keeps out the desirable and the undesirable alike.

The wall is also a defining characteristic of our era. In the arts as everywhere else, ours is the age of the dwarfed individual straining to be heard above the clamor--and the impregnable automated voice response unit at the other end of the phone.

The wall that separates creative people from their natural audiences also degrades our political system. Today, virtually the only people who have a chance of putting their views before the public are those who:

- are descended from political dynasties,
- are already famous from some other area of endeavor, or
- are beholden to special interests, from whom they've had to cadge enormous sums of money in order to wage an effective media campaign.

The sad part is, things don't have to be this way. We already have means to handle the problem in a better way. We just need to use them more effectively.

More Specifics

More effective use of the Internet can reduce political candidates' dependence on campaign contributions.

Expanding the supply of "gatekeepers" online will allow many more musicians to connect with people who enjoy their work.

Additional online gatekeepers will enable visual artists to finally reach their natural markets.

More effective use of online dissemination methods will transform and revitalize the written word.

Future distribution via the Internet will foster the growth of media unlike anything we're currently familiar with.

Ultimately, the most important upcoming innovation in the arts is the one that will enable the others.

More effective use of the Internet can reduce political candidates' dependence on campaign contributions.

In the final analysis, it shouldn't matter that only a small number of political candidates can afford to buy their way into the public consciousness via major media campaigns.

Television advertising may be prohibitively expensive, but space on the Internet is virtually free. The Web also offers a much better way to present views on today's complex issues than 10-second sound bites on TV news.

The only real problem is, how will voters ever be able to check out the fresh and carefully-reasoned views on a new candidate's web page, if they're never heard of the candidate, and thus would never think to look for him online?

There's a simple solution: just create a consolidated candidates' site, where all candidates in a given race can summarize their views and positions. Candidates should also be able to insert links to their own websites, and to other external material.

To make a consolidated political web site really come alive, add a candidates-only discussion forum, which anybody can read, but only the candidates can update. Let the candidates whale away at one another however they like. Given enough time and space, any lie, distortion, fib, fudge, half-truth, or bald-faced hypocrisy can eventually be exposed. The result will be a better, more thorough, and potentially much more *lively* political discourse than we've seen in a long time.

We also have no lack of organizations that could cheaply and easily create an effective site of this type. Any number of newspapers already have usable discussion-forum capabilities on their web sites. Salon.com is another possibility. So is the League of Women Voters, which has been inching closer to this kind of concept with every major election, and now mainly needs just to stop trying to get candidates to categorize their positions in overly structured matrices, and give them more freedom to express themselves however they see fit.

In the end, it doesn't much matter who sets up such a forum, as long as *somebody* does.

If political candidates can be heard by the voters without needing enormous media budgets, it will finally be possible to wean them from their demeaning dependence on large campaign contributions, or at least replace them with people who have not yet become afflicted with this addiction.

On the other hand, if we fail to provide them with a lower-cost way to get through, we might as well stop kidding ourselves with talk of reform.

Expanding the supply of "gatekeepers" online will allow many more musicians to connect with people who enjoy their work.

A good many musicians are now attempting to sell their music over the Internet. The problem is, most online music is presented in such a disorganized jumble that trying to wade through it is just too daunting a task for the average consumer.

What we really need are trusted people who can prescreen, organize, and recommend material to the user. A user should be able to specify not only that he's looking for, say, Latin jazz, but also that he wants to check out what's been recommended by some particular "taste maven"--who could be a respected music critic, a local night club impresario, a record store clerk, or any other individual or organization whose tastes happen to agree with his own.

The minute a user can specify that he wants to see only material that's been recommended by a "screener" of his choice, all the clutter and clamor will effectively disappear, and he will be in a much more appealing world of content he is genuinely likely to enjoy.

This solution is actually not far from becoming a reality. Software has already been developed, and critics and writers for respected publications like *Rolling Stone* have been lined up. Moreover, major online music sites have seen the service and say they are interested in paying for the right to offer it to their users.

What this solution is ultimately based on is expanding our supply of trusted "gatekeepers."

More Specifics

Gatekeepers are at the core of the music business.

There is a viable new way to provide the music industry with the gatekeepers it needs.

Gatekeepers are at the core of the music business.

The most central business function of the music industry is to match available content to tastes--i.e., to wade through the vast sea of material being produced, find the music that people are most apt to like, and make people aware it's out there and available.

At present, the major record labels are the overwhelmingly predominant entities performing this function. Radio stations basically piggyback off the choices of the record labels, and music stores piggyback off the radio stations' choices.

Unfortunately, the record labels are overwhelmed by the quantity of music clamoring for their attention. It is not economically feasible for them to hire enough reliable assessors of content to give a reasonable evaluation to it all. It is this structural problem that creates the wall of indifference that musicians who are unable to get their demo tapes listened to find so demoralizing.

In actuality, it is a problem not only for musicians, but also for consumers, who are deprived of a good deal of material they would have enjoyed. It has additional adverse effects on the music industry, which loses the ability to sell people more of the material they would have bought, had this music only been available to them.

There is a viable new way to provide the music industry with the gatekeepers it needs.

The Internet makes it possible to finally solve the music industry's gatekeeper problem at its root, by expanding the supply of people evaluating music.

Taste mavens can work on an independent basis, posting their recommendations online in order to be paid a small share of the revenue whenever someone buys music based on them. Since the user gets to pick the taste maven whose taste he trusts, the taste maven whose judgment people trust most can make a significant amount of money. (Those whose tastes people don't trust won't make anything.)

Unlike the current arrangement, where the major record labels task a mere handful of salaried employees with accommodating the tastes of vast segments of the population, the new system will provide an army of independent entrepreneurs focusing on more narrowly defined sets of tastes and values and interests. More consumers' tastes will be met, more musicians will earn a living, and more music will be sold overall.

We are also likely to see a proliferation of new ideas and approaches—a typical offshoot of enabling more people to participate in any field of endeavor.

Who knows what sort of innovative new forms may arise?

Who can tell what type of contemporary Renaissance may result from the reinvigoration?

Additional online gatekeepers will enable visual artists to finally reach their natural markets.

Like music, painting and the visual arts are a creative field where material is already being offered on the Internet, but the lack of a convenient way to find items that meet the user's standards of taste has up to now proved a hindrance.

If music critics are interested in earning ongoing income from their online recommendations, why wouldn't art critics be also?

Here again, expanding the supply of gatekeepers solves the problem at its source.

People's tastes in art vary widely. Why should the function of matching available visual content to such a broad range of tastes be left to the small set of people who can afford to open full-blown art galleries? It is precisely this limitation that creates the bottleneck that currently keeps so many capable artists from reaching their natural markets.

The same online service that transforms the way people find new music will replace the limited number of gallery owners with a broad spectrum of "taste mavens" of all kinds.

Potential buyers will enter their zip codes and the number of miles they are willing to drive to see a piece of art, then select a critic, local arts writer, or other entity whose tastes they trust, and be taken straight to material that is most likely to appeal to them.

When they find a painting or other artwork they like well enough to want to see it in person, they will simply click on a button, and they will be provided the artist's address and other contact information. An e-mail will also automatically be formatted and pre-addressed to the artist, in which the potential buyer can give his own contact information and suggest a date and time.

As with music, the people who guide other people to material they like will be paid based on their performance.

Whenever a potential buyer uses the online service to arrange to see a piece of art, the "taste maven" whose recommendation connected the person to the artwork will be paid a small referral fee. The online service will then in turn collect this fee from the artist whose work was discovered.

To ensure that the costs to the artist remain reasonable and affordable, a fee cap will be set at, say 10% of the asking price of the artwork. A sliding payment scale will also be used, where the first referral to a piece of art might cost a dollar or two, while later referrals would only cost a penny or so, until the overall payment cap is reached—at which point any subsequent referrals would be free.

Art buyers, art critics and writers, and artists will all benefit from this system.

So will even traditional art galleries, because participation in the system affords them an excellent low-cost marketing tool. (Participating galleries will simply pay the referral fees for the artists whose work they represent.)

The net effect will be to make more high-quality artwork available to more people, at the same time that more artists are able to connect with them and make a living from their work.

Isn't this exactly the type of environment in which the arts can best thrive?

More effective use of online dissemination methods will transform and revitalize the written word.

Dissemination of the written word can benefit from an expanded supply of online gatekeepers in the same ways that music and painting can, and more.

Writing is a product whose value depends almost entirely on standards and tastes. But who is there to reasonably assess the vast quantity of material that is being produced? Paper-based publishers are completely overwhelmed. Some have attempted to offload their pre-screening functions to agents, but all this has ultimately done is overwhelm the agents.

Online publishing via the Internet has attracted many writers as a possible way around the paper publishing bottleneck. Unfortunately, they tend to discover rather quickly that just making their work available to the public is of little benefit to anybody, if they can't connect with people who want the kind of thing they've written.

On today's Internet, the material most likely to be found isn't necessary what anybody wants most wants to see.

Even material whose appeal has been proven beyond any shadow of a doubt tends to get lost. For example, in a recent test, searches by subject matter were attempted for the lead articles in the online editions of America's 10 highest-circulation magazines. *Not one* of these articles showed up within the first 50 search results for its category.

If material whose appeal is already widespread cannot be found online, what hope is there for material from sources not much of anybody has heard of?

If we want to make the Internet truly viable as an open publishing medium, we need to increase the online supply of people who are skilled at matching content to tastes.

As with music and the visual arts, the best way to do so is via independent taste mavens who post their recommendations online, and are compensated each time a user chooses content based on these recommendations.

Once there are enough gatekeepers to evaluate what's being written, readers will be able to find a wealth of new material better suited to their own individual tastes. Many more writers, meanwhile, will finally be able to reach their natural audiences.

Such an environment will not only enrich the supply of writing available to the public, it will also enable the written word to play new roles.

More Specifics

Some of the new writers brought to the public's attention may become political candidates.

One publishing form that is especially likely to be transformed by new online techniques is the periodical.

Interactive techniques of exposition will increase the viability of online publishing.

Some of the new writers brought to the public's attention may become political candidates.

In earlier times, it was common for politicians to write their own material. In those times, we had political leaders like Thomas Jefferson and Abraham Lincoln. Where are contemporary political figures of comparable stature?

Maybe we need a way to recapture some key elements of the earlier environment.

Why couldn't people whose online writing on political issues resonates with significant numbers of people go on to be candidates for public office?

The idea may seem a bit strange to us today, accustomed as we are to candidates having their "messages" crafted by anonymous speechwriters. For one of these mere functionaries to present himself as a full-on candidate could seem as odd as having a muffler engineer present himself as a candidate for CEO of General Motors. Where, we might ask, would all the necessary "political" skills come from?

But there is nothing inherent in a democratic system--and certainly nothing in the founding fathers' vision--that requires politicians to be proficient exclusively in the arts of wheeling and dealing and fundraising.

We could use a few elected officials today whose qualifications center more around being perceptive, insightful, innovative, and in touch with their fellow citizens. And these are precisely the qualities that are likely to be found in a writer about public affairs who has been able to endear himself to enough people to render himself a viable candidate.

One publishing form that is especially likely to be transformed by new online techniques is the periodical.

The types of content currently found in magazines make almost ideal candidates for new-style publishing via the Web. But in order to make this content effective online, we have to do more than just create something that *looks* like a magazine on the Internet.

We need to more clearly understand the problems today's paper magazines solve, and apply a similar problem-solving approach to the new online medium.

More Specifics

Magazines as we know them are mainly a packaging solution for shorter material in a paper-based world.

Periodicals in their current form are still a relatively cumbersome way to make short material available.

The Internet can enable us to enjoy periodicals' benefits without their limitations.

The Internet will enable the creation of "virtual magazines."

Magazines as we know them are mainly a packaging solution for shorter material in a paper-based world.

The best way to grasp the significance of what magazines do is to imagine a world in which they didn't exist.

While a book is a hefty chunk of material that we don't mind paying a correspondingly significant price for, selling paper copies of material that's only a few pages long would be unwieldy on any number of levels.

To begin with, how could articles and essays be presented on their own to consumers? Newsstands would have to be ten to thirty times their current size to display the same amount they do now. Then how would the material be priced? And how would writers arrange to get their short material onto newsstands? Most important of all, how would consumers know what material was any good?

Magazines as we know them owe their existence to solving these problems. They enable us to buy a compilation of material from various writers (internal magazine staffers as well as outside freelancers) whose quality is attested to by inclusion in the magazine. The material comes in a convenient package that newsstand operators know how to display. It is offered at a standardized price, and appears on a predictable schedule.

Periodicals in their current form are still a relatively cumbersome way to make short material available.

In addition to their advantages, periodicals have always had significant limitations. Among the most significant of these is their way of shoehorning material that is not time-sensitive into a form that disappears in the space of a month--and sometimes as little as a week.

When a car magazine reviews a particular model, is it reasonable to assume that people are only interested in that car during the month that the article appears?

How about an article in a women's magazine on how to communicate in relationships? Is this information that's pertinent only to one month, and useless thereafter?

The Internet can enable us to enjoy periodicals' benefits without their limitations.

Up to now, we've had to put up with periodicals' drawbacks if we wanted to avail ourselves of their unique advantages. But in the Internet age, this tradeoff is no longer necessary. Periodicals just need to be better adapted to an online environment.

Virtually all major magazines now have online editions, but these have tended to copy the paper format too closely to take effective advantage of the online medium.

Most significantly, they persist in following the issue-at-a-time presentation format, with all its needless discarding of still-pertinent content.

If you want more than the "current" material, you'll have to seek it out in online archives that have no more appeal than an old-fashioned library's mustiest stacks--typically via clumsy low-level search engines that can do no more than the most mindless text matching. As an example of how this goes, I was once intrigued to see on a screen that my ancestor Henrietta Cotta was mentioned in an early-1900s article in the *Washington Post*. When I looked up the content in question, it was actually an ad for draperies, for which one of the available colors was terra *cotta*.

Other periodicals won't let you read older material at all, unless you pay them an upfront fee.

It's time for online magazines to stop copying their print editions so slavishly. In a purely rational sense, current editions are nothing more than what computer database experts call "views"--i.e., ways of looking at the data, rather than the data itself.

The real content of periodicals is cumulative. Online magazines need to start presenting it in a way that reflects this.

More Specifics

Making their cumulative content more conveniently accessible to users is in magazines' economic interests.

An upcoming consolidated service will make online magazine articles easier to find.

Making their cumulative content more conveniently accessible to users is in magazines' economic interests.

If there is any economic benefit in presenting a current edition's contents online, why would there be any less benefit in also presenting the cumulative contents? If nothing else, this can be a way to continue to draw traffic, and the advertising revenues that follow it, from material that would otherwise have reached the end of its economic utility.

Online articles can also be an exceptionally good way for magazines to introduce themselves to new subscribers. This simply requires that the articles can be found via some form of centralized content search service, rather than requiring users to go to each individual magazine's home page and start rummaging around from there. When a user finds an individual article he likes, he will tend to check out the magazine at large. If he is favorably impressed, he will be immediately transformed into a good sales prospect—for a magazine that he would otherwise have ever opened.

An upcoming consolidated service will make online magazine articles easier to find.

Surprisingly, no viable centralized search service currently exists for magazine content. In a recent study, when searches by subject matter were conducted on Google, Yahoo, and About.com for the lead articles in the ten most popular magazines in America, *not one* of these articles made it into the top 50 search results in its category.

Existing search services just aren't set up to recognize major magazines as the content people have shown they want most. Instead, they force them through arcane cataloging processes that allow all sorts of obscure sites and individual rants to effectively trump them, forcing them so far down the list of search results as to be effectively invisible.

Help is on the way, though. The same patents-pending service that enables trusted taste mavens to recommend new online music to users will also enable them to recommend new online written content.

The service will have a wrinkle of special utility to magazine content. Since major magazines already have trusted names, rather than wait for someone else to recommend their articles, they can effectively recommend this material themselves.

Consumers won't mind this. In fact, they'll appreciate it, since a major magazine's name tends to be taken as an imprimatur of quality. If users are looking for information on a particular car and find an article recommended by *Car and Driver*, far from being turned off by the knowledge that this is a self-recommendation, they'll take it as a sign that the article is well written and engagingly presented.

The Internet will enable the creation of "virtual magazines."

Like a record label in the music business or a gallery in the art world, a magazine ultimately owes its existence to its ability to match content to tastes. Its core business is to obtain material that people with a given set of tastes are likely to enjoy (whether by hiring staff writers, selecting appropriate freelance materials, or both), and then to make people aware the product is out there and available.

There is no reason why this function cannot be performed online by more people.

With online publishing, the barriers to entry are significantly lowered. It is not necessary to hire a full-time staff, cultivate independent writers, arrange to have the product displayed on newsstands, or pay large sums for printing and postage.

The simplest form of "virtual magazine" can be created just by recommending a given set of written material, utilizing the same online service by which other taste mavens will soon begin recommending online music or paintings.

A more polished product requires little more than a home page with links to various articles, which exist on pages of their own.

It will not be necessary for a virtual magazine to actually own any of the content it recommends. Not only is linking to other web content a proper and accepted practice on the Internet, there is a solid economic reason for the content's owners to want as much traffic to it as possible. Traffic increases the revenue that can be obtained from advertising, or in a paid environment, from pay-per-click fees.

The ability to be found in multiple virtual magazines at the same time can be of particular benefit to writers. Instead of agonizing over which publication to submit their work to, they can publish it themselves on the Web, then make as many virtual magazines as possible aware of its existence, to gain multiple links that maximize their traffic-based revenues.

More important, more writers and their work can finally reach readers, once virtual publishers and other online taste mavens eliminate the content "gatekeeper" bottleneck.

Interactive techniques of exposition will increase the viability of online publishing.

There is a piece of conventional wisdom that says that people won't read anything online that's longer than about 350 words. This is only partly true.

In the typical way of presenting longer material, the absence of pages to physically turn deprives people of a sense of making progress in their reading. They become like kids in the back seat of a car, continually moaning, "Are we almost there yet?"

This all changes when a better presentation method is used.

Online material can be absorbed much more effectively when it is broken up into short, self-contained segments of no more than a few paragraphs, each described by a brief summary statement. These "chunks" can then be presented in a way that lets the user continually choose whether to read a particular section, or settle for just the summary.

In this mode of presentation, users have been shown to happily read material of 2,000 and even 3,000 words in length—because choosing to read one more section is like choosing to eat just one more salted peanut.

The new presentation technique is already developed and in use. You are reading an example of it.

Its benefits go far beyond just being able to induce people to read longer material online.

More Specifics

The new exposition techniques let users skim or delve as they please.

Electronically presented materials can be more effectively interrelated with one another.

The new online exposition techniques enable material to be effectively assembled "from parts."

The new electronic exposition techniques will combine to create more effective ways of propagating thought than have yet been seen.

The new exposition techniques let users skim or delve as they please.

What's the right level of supporting detail to include in a given piece of writing? This is a question that has bedeviled writers for virtually as long as there has been writing. Including enough specifics to satisfy a skeptical reader, while at the same time keeping the exposition moving forward briskly enough to avoid boring a more impatient one, has always been a difficult balancing act.

The traditional printing process contributes to this problem, because it requires that large numbers of people see exactly the same thing. (I.e., one size has to fit all.)

By contrast, with new electronic exposition techniques, each reader can choose for himself the exact level of detail he wants to see. He can skim some points without fear of missing anything he would consider significant, then delve into other points at the most minute level of detail.

The material thus becomes tailored to each individual reader's interests and tastes. The writer is no longer forced to try to make one size fit all.

Electronically presented materials can be more effectively interrelated with one another.

With paper publishing, if seven logical points are asserted in an article, and someone wants to take issue with points two and five, the only way to do so is to bundle the two objections into an overall reply to the whole article--resulting in a sloppy kind of match between one overall piece of writing and another.

The new techniques of electronic publishing enable a much more logically accurate fit. With the new techniques, each of the seven points is presented as a separate "chunk," and any challenge can be made at this more specific level.

This can also be done without interrupting the flow of the original exposition. All that is required is a button at the bottom of the page, which the reader can click to see "Related External Items."

These related items can also do more than just refute the assertion made in the original item. They can corroborate it, refine it, imply it, be implied by it--the list goes on. (Click the button at the bottom of this page for a few examples.)

All told, there seem to be about ten standardized types of interrelationships that effectively cover the logical possibilities of how assertions can interrelate with one another. They appear to be useable even at the level of formal mathematical proofs.

The new online exposition techniques enable material to be effectively assembled "from parts."

One of the most important ways in which in which logical assertions can interrelate is for one assertion to *include* another.

Tools have already been designed to enable people to reflect this type of logical relationship. All that is required is for each point to exist as a distinct web page.

Sometimes a writer may reutilize sections of his own writing. For examples of this technique, click the gold "Related External Items" button at the bottom of this page.

Other times, the writer may include work created by someone else--which will carry its own copyright notice, and whose internally-generated revenues (whether from advertising or from user payments) will rise with the increase in traffic

As noted earlier, it is not necessary for the including entity to own formal intellectual property rights to the included one, since all the includer is doing is creating a link to another page--a standard Internet practice for which no permission is required.

The new electronic exposition techniques will combine to create more effective ways of propagating thought than have yet been seen.

With new online techniques of exposition, material can be crafted from the absolute best of many thinkers' words: a compelling paragraph from one source, an even more eloquent passage from another, and so forth.

It would be hard to overestimate the quality, or the sheer vitality, of the material that can be created in this manner.

Now add the ability to skim the material at a high level, or delve into as much supporting detail as we like, point by point. We will also have the option of checking out logical challenges to it on the spot, as well as seeing additional material that supports it. And we will be able to see logical implications that the material's original authors may never have foreseen, in areas they may never have considered.

We won't have to stop reading and break our train of thought as we try to find some other article, or locate another journal. It will all be right there in front of us.

All told, this will be a more powerful tool for the sharing of knowledge than anything yet devised.

Because virtually anybody will be able to link material, its content will gain the vigor of diversity. Yet quality will remain as high as today or higher, because people can simply set their filters to reflect the same kinds of rigorous peer review that existing journals provide--and whatever does not meet these standards will be effectively invisible to them.

Future distribution via the Internet will foster the growth of media unlike anything we're currently familiar with.

Written, audiovisual, and other forms of communication will be able to merge in the upcoming online world.

Fusing communications media online will enable us to convey thought more as it occurs in the mind of the thinker.

Online presentation offers multi-media experimentation many practical enablers.

Written, audiovisual, and other forms of communications will be able to merge in the upcoming online world.

The Internet offers the potential of interweaving various communications media to produce new forms that are compellingly different from anything we have seen to date.

At present, despite a lot of inflated talk about multi-media, all we're really seeing much of is relatively simple combinations of media, like photographs illustrating text in magazine articles, or subtitles providing a bit of textual overlay to movies.

But if material is presented in the kind of modular exposition format described and demonstrated throughout this essay, why couldn't a single work encompass a section of text, then a section of short video, and so forth?

Then again, why would the two media have to be restricted to separate sections? Why couldn't they occur together right in the same modular chunk of material? There might be text on one side of the screen and some form of short video material looping on the other side. The combination of text and video could be far more rich, clear, and compelling than either medium by itself. Then when the user clicked the "continue" button for the text, another video item appropriate to the new text would also appear.

For that matter, why would text and video have to appear in separate sections of the screen? Sometimes it might be more effective to have the text overlaying and perhaps crawling over the video; sometimes the video might "grow" from a section of text. The possibilities are limitless.

They expand still further when we consider the options of interweaving in still photographs, artwork, music, spoken words, and other types of audio--in fact, virtually any other form of content that can be digitized.

Fusing communications media online will enable us to convey thought more as it occurs in the mind of the thinker.

One of the most interesting possibilities inherent in assembling modular elements in various media online is the ability this gives us to create an essentially new way of conveying human thought—one that represents a more “native mode,” in the sense of coming closer to depicting thought as it actually occurs in the mind of the thinker.

When we think, it is not typically in the form of long, fully formed expository sentences. We tend to conjure up a lot of visual images, and we tend to sift through these fairly rapidly. This is an effect that can be effectively replicated via both still and moving pictures, using editing techniques such as flash cuts.

As for the words we hear in our minds when we think, these are more often fragments than complete sentences. They may be repeated in a kind of leitmotif, and they tend to be heavy on logical connectives like “but,” “what about?” or “that implies...” Capturing the feel of this “internal language” may be a bit more of a challenge, but the offshoot could be fascinating: perhaps it will sound like an exotic hybrid between computer logic and poetry.

Online presentation offers multi-media experimentation many practical enablers.

Evolving multi-media modes of expression are well suited to the Internet for a number of reasons.

For one thing, the user's simple ability to control the pace of the exposition will do a great deal to improve its acceptance and assimilation. The Internet's interactive capabilities are also required for the user to take charge of the depth and breadth of what he sees, by making choices about where to skim and where to delve.

In addition, presenting new forms of multi-media material online will give it an appropriate amount of time to catch on, finding its initial audience among the avant-garde before expanding to more general types of audiences. No one needs to devote expensive broadcast time or screen space in movie theaters to it, while it is still in the process of gaining mainstream acceptance.

A collaboration-friendly online environment also offers advantages in creating material, ensuring fair payment for all participants, and even protecting content from theft.

More Specifics

Compelling content is more economically and organizationally feasible to produce on the Internet than in other media.

A collaborative online workshop can properly compensate the creative participants.

Linked modular work will be better able to resist theft.

Compelling content is more economically and organizationally feasible to produce on the Internet than in other media.

How many people are capable of producing good text, good still images, good moving pictures, good music, and all the other ingredients of a high-quality multi-media experience entirely on their own?

For that matter, how many teams could do it? Just the logistical difficulties of forming such a team are formidable.

What makes much more sense is for material to be available on a “plug and play” basis. We need a way for each individual producer of multimedia content to find and splice in a piece of this from Source A, a section of that from Source B, and a smidgen of that from Source C, all on the fly, without ever knowing either A, B, or C.

Fortunately, this can be accomplished using essentially the same techniques discussed for building collaborative writing “from parts” in earlier sections of this essay.

A collaborative online workshop can properly compensate the creative participants.

Perhaps the most important part of creating an effective environment for content-sharing is to ensure that everyone whose material is used in a collaborative work receives a fair share of whatever revenue the composite work may generate, whether from advertising or from pay-per-click charges. Specifically, what is needed is a simple, fair, and equitable system that everybody understands and agrees to as a precondition of making content available on the system.

Once this is established, administering the system and apportioning out earnings is a function that can be readily performed by the same entity that incents people to categorize and recommend content.

Fortunately, this can be accomplished using essentially the same techniques discussed for building collaborative writing “from parts” in earlier sections of this essay.

Linked modular work will be better able to resist theft.

With high-speed Internet access, we have reached the point where even voluminous full-length feature films are being pirated in essentially the same way as songs. We could soon be facing an environment in which the economic reward for creating professional-quality content of all kinds is no longer sufficient to justify its continued production.

One way to address this threat is to create content that wouldn't be the same if it were downloaded.

What would be the point of downloading an unauthorized copy of a modular item from the type of interrelated content tapestry described in this essay, if the user loses the ability to navigate at will to other related items? He might attempt to also copy related modular pieces, but no matter how big a gob he selects, he ends up cutting himself off from the ability to explore potentially interesting related items.

Also, why would he go to all this trouble, purely to avoid seeing an ad? (Or in a pay-per-click environment, paying maybe a nickel?)

In multi-media works of this type, the sheer volume and complexity of the linked-to materials and interconnecting logic the user would have to understand and copy just to get a single modular unit to function *within itself* will tend to make theft an even more unattractive option.

In the final analysis, complex interdependence among content items could prove to be the only deterrent to online piracy that is truly effective.

Ultimately, the most important upcoming innovation in the arts is one that will enable a multitude of others.

Although any number of intriguing innovations in communication and the arts may be just over the horizon for us, ultimately the most significant of these is the one that will give producers of creative material the opportunity to connect with their natural audiences and markets.

This is the innovation that will enable people to choose trusted "taste mavens" to take them to music, writing, or other forms of content that are most likely to appeal to their own individual tastes.

Our era is one of communications gigantism, in which a very limited number of mega-entities devote virtually all their resources to the quest for a few mega-hits and blockbusters. When all other material is effectively brushed aside, consumers are deprived of options that would better express their tastes and their individuality, while the vast majority of creative producers are told they are superfluous and irrelevant.

Not only is this a poor way of matching producers with consumers, it is absolutely no way to foster innovation and creativity. Insisting that every creative work be instantly recognizable as a likely mega-hit is like insisting that every book be pre-sold before it is produced. It returns us to the economics of pre-Gutenberg times.

Expanding our supply of gatekeepers is the most effective way to move us past this blockage. There are already enormous quantities of creative material available on the Internet. What's missing is just a way to put people in touch with the content that best suits their tastes. Providing meaningful incentives for people to sift through material and match it to tastes is the best way to ensure this function is performed.

Patents are pending on the key techniques required for this type of service, and much of the necessary software has already been developed.

When the new service is finally launched, it will enable a structural reinvigoration of virtually every form of creative expression that can be rendered digitally. The transformation will be profoundly democratic and liberating.

If historical precedents can tell us anything, we can look forward to a wave of innovation and advancement.

RELATED PROCEEDINGS APPENDIX

None